This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

THE TEACHER AND THE SCHOOL

THE TEACHER AND THE SCHOOL

BY

CHAUNCEY P. COLGROVE, A.M., Sc.D.

HEAD OF THE DEPARTMENT OF PROFESSIONAL INSTRUCTION IN THE IOWA STATE TEACHERS COLLEGE, CEDAR FALLS, IOWA

NEW YORK
CHARLES SCRIBNER'S SONS
1910

HARVARD UNIVERSITY
GRADUATE SCHOOL OF EDUCATION
MONROE C. GUTMAN LIBRARY

LB875
.C6

FEB 22 1911

Copyright, 1910, by
CHARLES SCRIBNER'S SONS

To my wife, Emma Ridley Colgrove, formerly Professor of History in the Iowa State Teachers College, whose help and sympathy have been my constant encouragement, this book is affectionately dedicated

PREFACE

EVERY human being ought to aspire to become something, to be somebody, to do some useful work, to earn an honest living.

It is taken for granted that the readers of this book are either teachers, or those who aspire to become such. For those who assume that teachers are born, not made, or believe themselves to be teachers "by the grace of God" through some process of pedagogical predestination, this book has no message. These pages are written for those who desire to become good teachers and always *better* teachers. Youth is no crime, and inexperience is no disgrace; but youth that does not aspire, and age that has not learned from experience are both a disgrace and a crime.

All instruction involves both learning and teaching, and there are three elements that always enter into these processes: (1) The subject-matter to be taught; (2) the consciousness and self-activity of the pupil; (3) the preparation and personality of the teacher.

To be a real teacher one must make preparation along three main lines. Teachers must know what they teach, how to teach, and whom they teach. Scholarship, professional training, and a knowledge of children are, therefore, essential to success as a teacher. "In place of the

former demand," says Roark, "that the teacher should know only the three R's, there has grown up the more rational one that he should know the three M's—Matter, Method, Mind."

The teacher's work is many-sided. Under the conditions that prevail in American schools, he must perform the functions of organizer, instructor, trainer, ruler, and manager. This book attempts to give a systematic outline of the teacher's work along these lines.

The aim of the book is not technical, but practical. It is the outgrowth of many years of study, observation, and experience. And during these years there has grown up in the mind of the author the supreme conviction that the teacher is the life of the school. Every other educational problem can be reduced to this question of the fitness of the teacher. Our entire educational system breaks down if teachers, when brought face to face with pupils in the school, fail to inspire, to teach, and to train them. How best to prepare themselves to become more efficient teachers is the problem that faces thousands of earnest, honest young people to-day. That these pages may assist them in making such preparation is my sincere desire.

C. P. C.

IOWA STATE TEACHERS COLLEGE,
CEDAR FALLS, IOWA, *May*, 1910.

INTRODUCTION

THERE is a practical side to the teaching of children that requires knowledge of the child to be taught, of the subject matter to be acquired, and of the management and methods best to employ. The solution of the problems that arise in daily experience demands a thorough acquaintance with what has been found most effective and desirable. The experience of leading educators, combined with their opinions regarding policies and plans, is therefore of special value to those who desire to grow into greater effectiveness in professional life. There is much to be said about teaching and teachers that has not found its place in either history, philosophy, or literature, and the development of systems and of the practical means of economizing time and effort will continue for years to come. The last word concerning the great work of public education, through elementary and secondary schools, will not be said until American educational problems have all been solved, and that time will come only when democracy has completed its mission and mankind is fully civilized and enlightened. There are interpretations to be made of what the great thinkers of the past have said, while adaptations of their conclusions must be secured to render the truth effective for the service of the teacher. The necessity for actual teachers, who have won success in the fields of public school work, to become interpreters of this truth in order

that the truth may become useful to the rank and file, is self-evident. They owe it to those who daily face the children of the common people in the common school in order that more perfect knowledge may lighten the burden necessity makes imperative and real when instructing and training them in the way of civilization.

These great phases of education as found in the philosophy, science, and art of teaching are presented in this work in such a way that helpfulness, good spirit, and personal character are brought to the front as essentials to success in the vocation, while at the same time the realities and the necessities of school instruction are so emphasized and explained that quality and quantity are both given place and prominence.

Education is shown to be a gradual process of growth in certain elements that are cumulative in their nature and definite in their existence. The reader constantly confronts the fact that the teacher has a personal work to do, and that there is no substitute for good health, good scholarship, good character, or good training. Efficiency is a logical consequence of endeavor and of fidelity to the principles of sincerity and truth. Success is a result that can be insured by acquiring the qualities essential to the teaching vocation, and the teaching of children is so important and has such immense possibilities that no person should dare to undertake it without having made a preparation that the time and the means at hand give in such abundance.

No teacher of teachers is more fully represented in his book than is the author of these pages. He has been

through the experiences he suggests, he is an exemplar of his philosophy of work, he has given all he has in order to attain to the high standard of capability he has reached, while he comprehends in full the problems each beginner has to solve. His sympathy is marked in the atmosphere he throws about the sentiments here expressed; his ideals of life are portrayed in the choice standards here developed; and his conception of the greatness of the teacher's work is apparent on every page. To the young teacher this message will be the way of life; to the worried, tired teacher these sentiments will point a way of obtaining rest and relief; while to the enthusiastic, experienced teacher these words will be a constant reminder to keep near to the children and depend more upon the daily practice than upon sublime theory.

HOMER H. SEERLEY,
President Iowa State Teachers College.

CONTENTS

PAGE

PREFACE vii

INTRODUCTION ix

PART I

THE MAKING OF A TEACHER

CHAPTER I—SCHOLARSHIP AS A FACTOR IN SUCCESS 3

1. Becoming a teacher requires time. 2. The responsibility of the teacher no exception to the general law. 3. Qualities that win success. 4. Importance of scholarship to the teacher. 5. Meaning of scholarship. 6. How scholarship aids the teacher: (*a*) creates interest in school work; (*b*) prevents disorder; (*c*) commands respect and confidence; (*d*) secures and holds attention in class; (*e*) inspires faithful study; (*f*) sets up ideals to be attained. 7. Conclusion.

CHAPTER II—PROFESSIONAL TRAINING AND GROWTH 14

1. Neglect of professional training in the past. 2. The protest of the wise. 3. Why professional training has been neglected in the United States. 4. Dissatisfaction with the work of the schools. 5. Social and economic changes in the United States have (*a*) greatly broadened the work of the school; (*b*) made the training of teachers essential. 6. What professional training includes. 7. Young teachers must not depend for success upon such vague terms as "personality" and "common-sense." 8. Teachers not to blame for present conditions and low standards. 9. Advantages of professional training: (*a*) would prevent failure; (*b*) save health; (*c*) furnish correct stan-

PAGE

dards of teaching; (*d*) render experience fruitful; (*e*) prevent costly experimenting on pupils. 10. Means of securing professional training before teaching. 11. Professional growth while teaching: (*a*) through daily practice in teaching; (*b*) through study; (*c*) through educational papers; (*d*) through school visitation; (*e*) through institutes, associations, and summer schools.

CHAPTER III—THE STUDY OF CHILDREN AND ITS RESULTS 34

1. Child-study a necessary part of the teacher's preparation. 2. *In loco parentis.* 3. Society's costly blunder and its results. 4. The "new education" based upon a knowledge of children. 5. The modern teacher must study children: (*a*) to understand educational aims and values; (*b*) to avoid mistakes; (*c*) to select and apply methods and devices intelligently; (*d*) to consciously direct the thinking, feeling, and willing of the child. 6. Methods of studying children. 7. Aids to method. 8. Results of teaching without a knowledge of children. 9. Effects of studying children: (*a*) has profoundly influenced our courses of study and methods of teaching; (*b*) greatly improved school architecture, and school sanitation; (*c*) given us a more rational view of the child's development; (*d*) pointed the way to effective moral training in our public schools; (*e*) stimulated public interest in the welfare of children and given teachers greater insight and more sympathy. 10. The loveless school is a bad school. 11. Pestalozzi's miracle at Stanz. 12. Horace Mann's testimony.

CHAPTER IV—THE STUDENT TRANSFORMED INTO THE TEACHER 58

1. Essentials in the making of a teacher. 2. Stages in the teacher's evolution: (*a*) the step of mechanical imitation; (*b*) the inquiring stage; (*c*) the philosophic stage. 3. Some implied qualifications. 4. Unconscious preparation for teaching: (*a*) preparation for responsibility; (*b*) growth in personality; (*c*) acquiring common-sense in teaching; (*d*) development of initiative and executive ability. 5. Common excuses for failure. 6. No impossible ideal has been presented. 7. Importance of the teacher's work.

PAGE

PART II

THE TEACHER AS ORGANIZER

CHAPTER V—NATURE AND IMPORTANCE OF SCHOOL ORGANIZATION 68

1. The five phases of the teacher's work: (*a*) organization; (*b*) management; (*c*) instruction; (*d*) training; (*e*) discipline. 2. Organization must come first. 3. The teacher's share in organizing the school: (*a*) importance; (*b*) must be planned; (*c*) value to the pupil. 4. Organization implies mechanism. 5. Common-sense factors. 6. The teacher as organizer needs: (*a*) a good understanding of human nature; (*b*) constructive imagination; (*c*) confidence in his ability to plan work; (*d*) practical skill, good temper, and good sense; (*e*) a broad social outlook.

CHAPTER VI—THE AMERICAN COMMON SCHOOL . 78

1. Democracy and the common school. 2. Free schools necessary in the United States. 3. Our common schools are a unique institution. 4. The school is a complex affair representing: (*a*) the State; (*b*) the school officers; (*c*) the taxpayers; (*d*) the parents; (*e*) the pupils; (*f*) the teacher.

CHAPTER VII—THE NATURE OF THE SCHOOL . . 93

1. The school is an organism. 2. The school is an industrial organization. 3. The school is a social community. 4. The school viewed as a complex, self-perpetuating institution. 5. Co-operation is the great law of school organization and work.

CHAPTER VIII—AIMS OF THE SCHOOL 102

1. General aims as set forth in definitions of education. 2. Why a knowledge of the aims of the school is of value to teachers. 3. Education as a preparation for complete living. 4. Specific aims of education: (*a*) aims of physical education, and the teacher's duty here; (*b*) aims of intellectual education, as knowledge, mental discipline, and skill; (*c*) aims of moral educa-

PAGE

tion. 5. The moral mission of the school. 6. The "three H's" in education. 7. The partners of the school. 8. The teacher's opportunity and privilege.

CHAPTER IX—THE COURSE OF STUDY 115

1. Relation of the course of study to the aims of the school. 2. Importance of the elementary course of study. 3. The teacher and the curriculum. 4. Aims of the course of study. 5. How the course of study is related to the community and to civilization. 6. Making a course of study involves three main problems: (*a*) the selection of material; (*b*) the order, or sequence, of topics and studies; (*c*) the correlation of subjects. 7. Theories of the selection of studies: (*a*) formal discipline; (*b*) utility of knowledge; (*c*) socializing the individual; (*d*) theory of interest. 8. Basis of truth in each of these theories. 9. The relative value of studies. 10. Groups of studies in the elementary course: (*a*) language and literature; (*b*) science; (*c*) mathematics; (*d*) history; (*e*) art; (*f*) motor activities. 11. The sequence of topics and studies: (*a*) psychological order; (*b*) logical order; (*c*) the order of the culture epochs. 12. The correlation of studies. 13. Reforms needed.

CHAPTER X—PLANNING THE CAMPAIGN 143

1. Preliminary work: (*a*) meeting the legal requirements; (*b*) securing the school; (*c*) signing the contract. 2. Making a pre-study of the field: (*a*) to ascertain the public sentiment of the district; (*b*) to secure a good boarding-place; (*c*) to know the condition and arrangement of the school-house; (*d*) to find out what materials there are to work with; (*e*) to consult the school records; (*f*) to get the information necessary to form an intelligent plan of action. 3. The first day. 4. A teacher's confession. 5. Some additional suggestions. 6. The secret of making a good start.

CHAPTER XI—CLASSIFICATION, GRADING, AND PROMOTION 155

1. Meaning. 2. Systems of school organization. 3. Classifying a rural school. 4. Tabular view of the course of study for rural schools. 5. Suggestions for classifying pupils. 6.

PAGE

Records. 7. Gradation of city schools: (*a*) advantages; (*b*) dangers. 8. Plans of gradation: (*a*) term or semester plan; (*b*) Mr. Search's "Ideal School"; (*c*) the Elizabeth plan; (*d*) the Batavia plan; (*e*) the modified Cambridge plan. 9. Other devices for securing flexible grading. 10. Departmental teaching. 11. The wiser course.

CHAPTER XII—THE DAILY PROGRAMME 176

1. Importance and objects of the programme. 2. Factors in the problem of making a programme: (*a*) the time element; (*b*) the subjects and their relative importance; (*c*) the succession of studies. 3. Summary of principles. 4. Programme for a rural school: (*a*) four divisions; (*b*) five divisions. 5. Keeping to the programme.

CHAPTER XIII—THE SCHOOL-ROOM AS A FACTOR IN ORGANIZATION 189

1. The old-time school-house. 2. The school-room interests the entire community. 3. A pleasant school-room a silent teacher of morals. 4. The relation of school hygiene to good order. 5. The question of health: (*a*) care of the eyes; (*b*) correct posture; (*c*) comfortable temperature; (*d*) pure air; (*e*) contagious diseases; (*f*) care of the school-room; (*g*) overpressure of exceptional pupils. 6. Bookcases and cabinets. 7. Other furniture. 8. Apparatus. 9. Decorations. 10. The school library.

PART III

THE TEACHER AS INSTRUCTOR

CHAPTER XIV—THE WORK OF THE SCHOOL . . . 206

1. School-work is more than: (*a*) "hearing recitations"; (*b*) more than "keeping order." 2. Two articles of faith in the teacher's creed. 3. Work defined. 4. Shiftless school-teaching. 5. School-work is: (*a*) not puttering; (*b*) more than mere play; (*c*) not drudgery; (*d*) creative self-activity. 6. The tests of school-work: (*a*) immediate; (*b*) remote.

PAGE

CHAPTER XV—NATURE OF THE TEACHING PROCESS 217

1. Definitions of teaching. 2. Teaching a two-sided process. 3. The psychology of teaching. 4. Teaching not a mechanical process. 5. The child's capital: (*a*) the nervous system as related to teaching; (*b*) the contents of the child's mind include: (1) sensations, (2) percepts, (3) memory images, (4) images of imagination, (5) concepts; (*c*) the factors of feeling and will. 6. Summary. 7. Some important inferences.

CHAPTER XVI—SOME LAWS OF TEACHING . . 239

1. The law of sense-perception. 2. The law of motor reaction. 3. The law of apperception. 4. The law of self-activity. 5. The law of aim. 6. The law of induction. 7. The law of deduction. 8. The law of interest and attention. 9. The law of habit-forming.

CHAPTER XVII—OBJECTS AND REQUISITES OF THE RECITATION 254

1. Place of the recitation in school-work. 2. Criticisms of the recitation. 3. Objects of the recitation lesson: (*a*) Roark; (*b*) Wickersham; (*c*) Hinsdale; (*d*) Dinsmore; (*e*) Harris; (*f*) Dutton. 4. How the teacher may realize these aims. 5. Prerequisites of the recitation: (*a*) the teacher's preparation of the lesson; (*b*) proper assignment of the lesson; (*c*) the pupil's preparation of the lesson; (*d*) comfortable, quiet, and healthful surroundings and necessary study helps.

CHAPTER XVIII—THE TEACHER'S PREPARATION OF THE LESSON 263

1. The "dead-line." 2. The teacher should be independent of the book. 3. Why teaching is a mode of learning. 4. Two different view-points of the lesson. 5. How to study a lesson to teach it: (*a*) as related to other lessons and subjects; (*b*) must have a plan of study; (*c*) keep in mind an image of the class as composed of individuals; (*d*) illustrations must be thought out;

PAGE

(*e*) make provision for a review of the last lessons and a preview of the new lesson. 6. When to study the lesson to teach it: (*a*) common practice; (*b*) should be studied before assigning it. 7. How daily study aids the teacher in assigning the lesson: (*a*) knows what and how much to assign; (*b*) can indicate the main points; (*c*) able to make good use of the library; (*d*) can suggest how best to attack the lesson; (*e*) can keep the pupil's work balanced. 8. How daily study aids in teaching the lesson: (*a*) makes the teacher independent of the book; (*b*) gives freedom and skill in questioning; (*c*) saves time, creates interest, and holds attention.

CHAPTER XIX—PROPER ASSIGNMENT OF LESSONS . 275

1. Meaning. 2. Some things that are assumed in assigning the lessons. 3. Assigning lessons a test of the teacher's ability. 4. Importance and value of a good lesson assignment. 5. Principles governing the assignment of lessons: (*a*) must appeal to pupil's interests; (*b*) must challenge his power to think; (*c*) must persuade his will to attack the lesson aggressively; (*d*) must appeal to his past experiences. 6. Steps in assigning the lesson. 7. Suggestions and directions. 8. Time required for assignment of the lesson. 9. Oversight of the pupil's study.

CHAPTER XX—THE PUPIL'S STUDY OF THE LESSON 290

1. The study-lesson. 2. Waste of time in so-called study. 3. Importance of learning how to study. 4. Aims of the study-lesson: (*a*) independent mastery of books; (*b*) power of sustained thinking; (*c*) habit of self-controlled work; (*d*) sense of personal responsibility. 5. Study defined. 6. Nature of study. 7. Difficulties in learning to study: (*a*) the child's previous mode of learning; (*b*) change from oral lessons to text-book work; (*c*) text-books no stimulus to effort; (*d*) untoward physical surroundings; (*e*) outside interests and distractions. 8. Conditions of study. 9. Method in lesson study. 10. How to help pupils study: (*a*) physical conditions need constant oversight; (*b*) the plan of work must be clear and definite; (*c*) no interruptions of the study-lessons should be tolerated; (*d*) study with the pupils; (*e*) teach the art of study through right practice in study.

PAGE

CHAPTER XXI—METHOD IN TEACHING THE LESSON 318

1. Is there a typical method of teaching? 2. Meaning of method. 3. The lesson aim. 4. The formal steps in the process of instruction. 5. The formal steps applied to oral development lessons: (*a*) preparation, or introduction; (*b*) presentation, or acquisition; (*c*) comparison, or association; (*d*) generalization, or classification; (*e*) application, or deduction. 6. The formal steps applied to text-book lessons: (*a*) the proper assignment of the lesson is step one, or preparation; (*b*) the pupil's study of the lesson constitutes step two, or presentation; (*c*) the chief work of the recitation is a more complete mastery of steps three, four, and five. 7. Aids to method, or teaching devices. 8. The stream of thought in the recitation.

PART IV

THE TEACHER AS TRAINER

CHAPTER XXII—THE NATURE AND IMPORTANCE OF TRAINING 346

1. Habits are formed through training. 2. Neglect of training in our schools. 3. Nature of training. 4. Proper development implies training. 5. The fallacy of formal discipline. 6. Forming habits must accompany instruction.

CHAPTER XXIII—HABIT FORMING IS CHARACTER-BUILDING 354

1. Advantages of habits: (*a*) save power and lessen fatigue; (*b*) strengthen power; (*c*) conserve knowledge. 2. Dangers of habits: (*a*) children may acquire bad habits through ignorance; (*b*) may supplant judgment and prevent change; (*c*) may be our worst enemies. 3. How habits are formed or broken: (*a*) the starting point, or the raw materials of habits; (*b*) how attention makes motives; (*c*) weighing and choosing; (*d*) acting and imaging actions; (*e*) tendency to repetition, or the physiological factor in habit; (*f*) repetition, or persistent imitation. 4.

PAGE

Habits as related to character. 5. Rules for forming and breaking habits: (*a*) make a vigorous start; (*b*) permit no exception; (*c*) act on every opportunity; (*d*) grow a good habit in the place of a bad one. 6. The spirit and motives of the teacher.

PART V

THE TEACHER AS RULER AND MANAGER

CHAPTER XXIV—SCHOOL GOVERNMENT 373

1. The old view of school discipline. 2. Why school government has become more humane. 3. School government as related to discipline. 4. Good order must precede effective training. 5. School government a relative term. 6. The sources of good order: (*a*) indirect means; (*b*) direct means. 7. The teacher at work.

INDEX 393

THE TEACHER AND THE SCHOOL

THE TEACHER AND THE SCHOOL

PART I.

THE MAKING OF A TEACHER

CHAPTER I

SCHOLARSHIP AS A FACTOR IN SUCCESS

Becoming a Teacher.—One Friday a student in my class in school management stopped at the desk and said: "I shall not be in the class Monday. I am going home to teach." She told me that she had never taught, but that there were not teachers enough to fill the schools in her county, and so the county superintendent had asked her to take a school for the winter term.

Friday this young woman was a student—a learner. She took an examination Saturday, and received a certificate. The following Monday she entered the school-room to assume the duties of a teacher.

Now, there is no magic in the word certificate, nor in the word teacher, nor in the work of teaching to transform in a day or two a weak, uncultured, inexperienced young man or woman into a strong, learned, and capable teacher. It is evident that whatever faults and weaknesses, whatever ignorance and lack of self-control a person may have as a student Friday will go with him into the school-room when he enters it Monday morning as a teacher. No process

has ever been discovered by which one may suddenly acquire the qualifications of a real teacher. Knowledge is a plant of slow growth. Good habits are the result of long and persistent right-doing. No teacher acquires professional skill by accident. Hard study and experience are always necessary to become skilled in any work or trade or art. It is possible to cram for examination, but no one can cram for character.

The Responsibility of the Teacher.—"I am sick of hearing about the responsibility of the teacher," is quite a common remark even among old teachers, especially those who have never been accused of being good teachers.

If older teachers can speak thus of their profession, it is not surprising that young teachers should not take a very serious view of their responsibility. To many of them it will seem that writers on education greatly exaggerate the responsibility of the teacher. But the fact is that life everywhere is full of responsibility. If we take the wings of the morning and fly to the uttermost parts of the earth we cannot escape personal responsibility. We cannot sneer it down, nor laugh it down, nor always treat it as a joke. Every farmer, every merchant, every banker must face responsibility. No mother is free from it; no father can ignore it. The physician who is ignorant, or careless, or lacks a sense of personal obligation to his work may easily ruin the health or destroy the life of his patient. The railroad engineer holds the lives of hundreds in his hands.

Sixty years ago David Page wrote: "By taking the position of the teacher, all the responsibility of the relation is voluntarily assumed. And it is a responsibility from which one cannot escape. Even though he may have thoughtlessly entered upon the relation of teacher, with-

out a single thought of its obligations; or though, when reminded of them, he may laugh at the thought and disclaim all idea of being thus seriously held to a fearful account, yet still the responsibility is on him—a responsibility he can never shake off as long as the human soul is immortal and men are accountable for such consequences of their acts as are capable of being foreseen."

Qualities that Win Success.—Now suppose we admit that the responsibility of the teacher is no greater than that of workers in other similar fields, the fact still remains that this responsibility is very real and very great. And is it not clear that the teacher's preparation and power must be correspondingly great? While ignorance and incompetency stand helpless before responsibility, knowledge and power rise with confidence and joy to meet the duties of the hour, however great they may be. Practically the same qualifications that make one successful in other callings will win success in teaching. Thorough knowledge of the work to be done, attention to business, self-control, honesty, courtesy, and a willingness to do more than is absolutely required of one—these are the qualities that win respect and command success everywhere.

Nearly one hundred thousand young people who are students now will be teachers in our American public schools one year from now. If, as students, they have been accurate, industrious, systematic, and zealous for truth, they will take these qualities with them into their school-rooms as teachers. If they have acquired habits of keen observation, order, firmness, dependability, tact, cheerfulness, and dignity, these same habits will be a part of their equipment for their work. The process of becoming a real teacher is the acquirement of these qualities and habits.

Importance of Scholarship.—The first essential qualification of the teacher is scholarship, not so much for what it is as for what it stands. A simple cross is not much in itself, only a bit of wood, or silver, or gold; but it stands for much. As a symbol, it is full of meaning and of power. So it is with scholarship. It stands for ability well directed, for zealous and continuous effort, for daily tasks faithfully performed, and for self-denial in a hundred different ways.

However much we may insist upon professional training, common-sense, and the spirit of the teacher as essential qualifications for the work of teaching, these three things are perfectly obvious:

(1) Successful professional training must rest upon the foundation of accurate and adequate scholarship. The more methods and devices a smatterer acquires the more dangerous he becomes.

(2) No person of common-sense will invite failure by attempting to do a work for which he has made no preparation.

(3) By the "spirit of the teacher" we, of course, mean the right spirit. We mean interest in the school and the pupils, definite plans, honesty of purpose, enthusiasm, appreciation of the value of our work, freedom from sham and hypocrisy; and these things demand scholarship in the teacher. Mr. White says: "Even the smallest pupil in school has wit enough to know that no one should attempt to teach what he does not know." To know well what he attempts to teach is the first essential qualification of the teacher. This is so evidently true that the government of every civilized state requires those who teach in its public schools to pass an examination in the essential branches of study.

Any primary or elementary teacher who, because of

her ignorance, is constantly making mistakes in spelling, grammar, history, and geography, who must keep her book open in the class, and is compelled to dodge questions which she ought to be able to answer, justly deserves the contempt of her pupils.

Meaning of Scholarship.—Some one has said that scholarship is a thorough and fresh knowledge of the subjects taught. This definition is not broad enough, for efficient scholarship includes much more than a knowledge of subject-matter or facts. *How* we know is as important as *what* we know. Real scholarship discovers the relation of facts, interprets them, compares them, classifies them according to their fundamental connections. Scholarship means discipline as well as knowledge, for knowledge acquired in a loose, illogical manner will always be confused and unreliable. Only a well-trained teacher can acquire intellectual control of the pupil's mind, give right direction to his growing powers, awaken his inner life, and arouse his highest aspirations for learning. The teacher must know much more than he teaches. He must know not only the lesson he teaches but the book he teaches and the subject he teaches—know its relations to other subjects and to life.

Scholarship means love of truth for truth's sake; and if the teacher has not a sincere love of truth, how shall he teach his pupils to value "wisdom above rubies"? Scholarship means power to think; and if the teacher is not a thinker, how shall he train others to think?

How Scholarship Aids the Teacher.—Many young people, under the conditions that have prevailed in our American schools, have entered upon the work of teaching with very meagre scholarship. Some of them have made successful teachers, because they possessed good natural

abilities and devoted themselves heart and soul to their school work. They prepared their daily lessons faithfully and lost no opportunity for self-improvement. For such young people we have no criticism. But the great majority of these unprepared young teachers have not made a success of their work. After teaching a few terms, some of them drop out of the field discouraged and discredited—dismal failures. Others continue to teach as long as they are able to secure schools, but make no effort to improve, and complain bitterly if they are compelled to attend a two weeks' institute.

To be content to teach term after term on the lowest grade of certificates issued by the State is the plainest possible evidence that such persons have formed no adequate conception of teaching. If young people realized that lack of scholarship is the ever-fruitful source of heartache and worry for the teacher, as well as the source of mischief, meanness, and ill temper in their pupils, fewer third-grade teachers would be found in our schools. There are many ways in which scholarship becomes a positive factor in the success of the school.

(1) *Scholarship Creates Interest in School Work.*—Rabbi Hirsch has said that the reason why so many boys leave school early is because the ordinary school routine is absolutely without interest to the average boy. As a remedy for this condition, it has been urged that our courses of study should contain manual training, domestic science, agriculture, drawing, and a great many other things. But the surest remedy for this lack of interest is to put a live, well-qualified teacher in every school, for a teacher who cannot interest boys and girls in a good reading lesson will not succeed any better in attempting to teach manual training or agriculture.

Interest is not in the studies alone, nor is it in the pupils alone, but it grows out of the attitude of the pupil toward his studies. The teacher creates this attitude, and thereby secures interest. By the fulness and freshness of his knowledge, by his own interest, zeal, and enthusiasm, by the aptness of his illustrations, he arouses the pupil's mind, challenges him to earnest effort, reveals to him the value of knowledge, so that study becomes a pleasure to him and school life seems worth while.

(2) *Scholarship Prevents Disorder.*—Just in so far as pupils become interested in their school work will tardiness, irregular attendance, laziness, disobedience, and disorder disappear. Pupils will feel a genuine pride in the success and good name of the school. They will co-operate willingly with the teacher in all plans for the progress of the school. They will talk of their work when they go home, and parents will catch the spirit of helpfulness, and public opinion will be on the side of the teacher in maintaining order and enforcing necessary regulations.

(3) *Scholarship Commands Respect and Confidence.*—Such confidence is just as essential in a school as it is in an army. The road to knowledge is not always plain and easy. Pupils see no familiar landmarks; they get lost, or become discouraged. At such times confidence in their teacher and in his ability to bring them out all right in the end is their strong support. But what if they see him constantly falter and blunder? What if they hear him mispronounce the commonest words and violate the simplest rules of grammar? "What is the use of going to school any more? I know more than the teacher does now," said a ten-year-old boy to his father. A little girl in the fourth grade remarked: "I don't think the teacher is fair, because she always tells us in class to shut our

geography, and then she opens hers, and she is older than we are, too."

It is not true that a teacher can succeed in spite of poor scholarship. He may "keep school," but he cannot teach school, and his errors and low ideals are perpetuated in his pupils. Nor is this all. If an army loses faith in its commander, disobedience, cowardice, mutiny, and desertion are sure to follow. And these same evils will inevitably appear in any school where the pupils have lost confidence in the teacher.

(4) *Scholarship Secures and Holds Attention in Class.*—Any teacher who fails to secure and hold the attention of pupils in the recitation is a complete failure. Pupils are often present in the class in body but absent in spirit, and therefore derive no benefit from the recitation. They remember nothing clearly, for they neither saw nor heard anything vividly. They receive no inspiration for their next recitation. They become listless, dull, discouraged.

To secure and hold the attention of a class of children is a difficult thing, and no teacher can do this successfully unless he is in a great measure independent of the text-book. If young teachers only understood the added freedom and power that come to one who is able to put aside the book during class work and to teach the lesson out of a full knowledge of the subject, they would value scholarship much more than they now do. The teacher whose eyes are not confined to the text-book, but are free to watch the faces of his pupils, has more than doubled his teaching power. He is free to adapt his questions to the needs of the individual pupils, to furnish proper explanations of the difficult points in the lesson, to check inattention, and to keep the thought of

the whole class on the work in hand. Such a teacher will rarely need to complain that pupils are not attentive in class.

(5) *Scholarship Inspires Faithful Study.*—Suppose a class of active, wide-awake boys and girls to have just completed a recitation in geography. The recitation has not been a success. The teacher sat at the desk and simply asked the questions in the book, giving no illustrations nor explanations of the text. There had been a dispute in the class over the location of some river or city, and the teacher had to look a long time to find the right answer. Meanwhile the class grew more and more restive and disorderly. The teacher became cross and scolded the entire class for their poor lessons and stupidity. One pupil was sent to his seat. Finally, after twenty minutes of such class work, the teacher assigned the "next four pages for to-morrow's lesson" and dismissed the class. Now watch them as they go to their seats with noisy steps, impudent manners, and sullen faces. Listen to the slamming of seats and books. What inspiration have they received to help them in the preparation of their next lesson for the day? What rewards have they to look forward to in their next recitation? It is very easy to understand how they will spend their next study period. Only a few choice spirits among them, who are held to their duty by home influence or by an unquenchable thirst for knowledge, will take their books and apply themselves to study. The others will not study, are soon in mischief, and the teacher must scold, threaten, punish, and "keep pupils after school to make up lessons."

On the other hand, imagine these same boys and girls to have a teacher whose knowledge of geography is so full and fresh that he is able to present the lesson in a series

of vivid pictures. The text-book becomes alive. The recitation proceeds with animated questions, conversation, and discussion. The pupils are happy. The teacher carefully assigns the next lesson, and the recitation closes all too soon. The boys and girls go to their seats quietly. They have had a good time, and they expect to have a good time in the next recitation. The teacher does not need to tell them to go to work, for they gladly take their books and put themselves to work. The scholarship of the teacher has inspired them to faithful and diligent study.

(6) *Scholarship Sets up Ideals to be Attained.*—The ideals and standards of children must be in concrete form. They must be embodied in living persons. Scholarship in the teacher is such a living standard, and is a constant reminder to the pupils that such knowledge is precious and beautiful and greatly to be desired. The subtle influence of such an ideal permeates the very atmosphere of the school, quickening the intellect and strengthening the will of every pupil.

Conclusion.—These are some of the ways in which the scholarship of the teacher reacts helpfully on the school. Many others might be given, for there are innumerable ways in which a knowledge of the so-called higher branches helps the teacher. Reading cannot be taught properly by one who is ignorant of rhetoric and literature. Geography teaching is sorry work if the teacher knows nothing of geology, botany, and history. A good knowledge of general history and English history is a wonderful help in teaching the history of our own country.

The attainment of real scholarship is, therefore, one of the essential steps in transforming the student into the teacher. And other things being equal, the success of the

teacher will be in direct proportion to his ability, zeal, accuracy, and faithfulness as a student.

SUGGESTED READINGS

Page, "Theory and Practice of Teaching," chaps. V and VI; White, "School Management," pp. 21–26; school laws of your State; Dutton, "School Management," chap. II; Sabin, "Common Sense Didactics," chaps. I, II, III, and IV; Hinsdale, "Studies in Education," chap. IX; Trumbull, "Teaching and Teachers," chap. II; Landon, "Principles and Practice of Teaching," pp. 1–24; Horace Mann, "Report for 1843"; Kratz, "Studies in the Schoolroom," chap. XVI.

CHAPTER II

PROFESSIONAL TRAINING AND GROWTH

Neglect of Professional Training in American Schools.—From the reports of the Commissioner of Education, we learn that in some of our States less than ten per cent. of the public-school teachers are normal-school graduates; that the average time of service of teachers is between four and five years; and that the average monthly salary of women teachers for the whole United States is about $38. Dr. Seeley says: "When school opens in September, each year, there are eighty to a hundred thousand new teachers who come up to fill the places of those who have died, married, withdrawn to enter some other work, or who are tired of teaching, as well as to supply the increased demand for recruits caused by the ever-growing army of school-children. Of this vast number of new teachers about ten per cent. will be graduates of normal schools; perhaps another ten per cent. will have some pedagogical training—not enough to give them professional standing—and the balance of eighty per cent. will be without any professional training whatever. I think this is the most important, the most stupendous problem that confronts American education to-day."

The Protest of the Wise.—"That teachers are 'born, not made,' has been so fully the world's thought until the present century that a study of subjects without any study of principles or methods of teaching has been deemed quite

sufficient." These words are from the "Report of the Committee of Fifteen." But it must not be assumed that this has been the thought of the world's best and wisest men and women. Against such a waste of effort in education the best thinkers in all ages have protested. Plato's greatest book is a treatise on education. Aristotle considered education as the most important and most difficult of all problems. Cicero wrote: "It would be absurd to suppose that the most trifling employments have their guiding laws and principles, and that the training of children, the most important work of all, must be given over to chance." And wise old Richard Mulcaster, the teacher of Edmund Spenser, declared that the "only hope of improving our English schools lies in providing training for our teachers."

Why Professional Training Has Been Neglected.—In the first place, universal education is practically a new problem. It is true that Comenius wrote, two hundred and fifty years ago: "Not only are the children of the rich and noble to be drawn to the school, but all alike, gentle and simple, rich and poor, boys and girls, in great towns and small, down to the country villages; and for this reason, because they are born human beings." Yet popular education made very little progress till the time of Pestalozzi. This great teacher, who has with justice been called the "father of the public school," died in 1827. Since his time every civilized nation has become interested in the education of the common people, and in nearly all of them great school systems, controlled by the state, have been founded. Very naturally the material phases of the great problems of popular education claimed attention first. How to organize school systems; how to plan the work of school officers; how to provide school funds, build school-

houses, prepare courses of study—all these problems had to be worked out.

Conditions in the United States.—In our own country, until within a few years, the school education of children was a matter of secondary importance. Indeed, many of our great men, men like Jackson, Clay, and Lincoln, had practically no schooling at all. There were few public high schools. The school year was short. The course of study was limited to the three R's. Boys studied manual training and agriculture in the shops and on the farm. Girls practised domestic science in the home. Parents taught their children industry, morals, and religion in the family. Fifty years ago society in the United States was vastly less complex than it is now. There was no large wealthy leisure class. Great factories, shops, department stores, and corporations were unknown. People lived in closer contact with nature. The world's work was done by hand rather than by machinery. Poverty was the rule, and the opportunities and temptations to graft and dishonesty were not so apparent as they now are. Lawyers and doctors entered upon the practice of their so-called professions with little more preparation than to "read" law or medicine.

Teaching Rather a Primitive Work.—It is easy to see that under these conditions the burden of the public school was not very great. People did not demand very much of it. If their children learned to read, to write, to spell, and to cipher, they were satisfied; and, as the ordinary methods in use were purely mechanical, they naturally concluded that any one having sufficient knowledge could teach school, or, in other words, "hear recitations." And in spite of changed conditions, in spite of the fact that society constantly demands more and more of the

schools, in spite of the heroic labors of Horace Mann, Henry Barnard, and hundreds of other men for the professional education of teachers, the tremendous and significant fact is that four out of every five teachers still get all their professional education at the expense of the children that they teach—expense that cannot be measured in money, for it costs time and energy and human life. This is our great educational waste.

Dissatisfaction with Results.—Is it any wonder that nobody is quite satisfied with the results of such teaching? Against such unnecessary waste the life of Francis W. Parker was an eloquent protest. In the *Forum* for December, 1892, no less an authority than President Eliot, of Harvard University, made the following sweeping criticism of popular education:

(1) General education does not promote general contentment, and so fails to secure public happiness.

(2) People in general are hardly more reasonable in the conduct of life than they were before free schools.

(3) Lawless violence breaks out just as it did before there were common schools.

(4) New tyrannies are constantly arising. Popular elections are conducted in an irrational manner, votes are still purchasable, and the average voter is an intense partisan.

(5) Society does not tend toward a greater equality of conditions; the distinctions between rich and poor are intensified, and education does not secure for the wage-earner exemption from exhausting toil.

(6) The rich man refuses to accept responsibility with his wealth; he gives or withholds employment as he pleases, and, irrespective of education, is just as selfish and luxurious in his habits as was his predecessor in former centuries who could not write his name.

(7) War is more destructive than ever.

(8) The conditions of employment have not been made more humane and comfortable; almost all services and industries are organized on the brutal principle of the dismissal of the employed by the employer on the briefest notice.

Changed Conditions Demand Professionally Trained Teachers.—Coming from such a source, this is a startling indictment of our public schools, and while the indictment is very much overdrawn, and possibly unjust in some particulars, it shows clearly how very much President Eliot demands of our public schools. Hitherto we have hardly considered the deeper social, industrial, and spiritual problems of education. The material phases of popular education have absorbed our attention. But now school systems have been organized in every State in the Union; school funds have been provided; school machinery has been perfected. We must next give our attention to the less obvious, but far deeper, spiritual phases of the great problem of universal education, and this is so because of the tremendous social, economic, and moral changes in our modern civilization.

Pioneer life has almost disappeared. People flock to our cities. Society is rapidly growing more complex. The division of labor has made specialization a necessity. Girls as well as boys go out from the home to earn a livelihood, and home ties are broken earlier in life than in former times, for the world's work now is done largely in shops and mills, in factories and offices. This in-door work makes great demands upon the physical endurance of the workers. Machinery, too, is constantly becoming more costly and complex, and this demands greater skill and intelligence in those who use it. Those forms of

wealth that can be easily concealed and readily carried are multiplying so that temptations to dishonesty, petty thieving, and burglary abound on every hand.

Functions of the School Greatly Broadened.—Our schools reflect these great changes in our modern social structure. Courses of study consist no longer of the three R's, but include preparation in all that the people demand of the individual in society. Herbert Spencer's well-known definition of education as "preparation for complete living" means vastly more than it did a half-century ago. The public school has broadened its functions. It has been required to assume more and more the duties and functions of the home, the Church, and the Sunday-school. The public schools must teach physical training, sewing, cooking, hand-work, music, drawing, manners, and morals. The school takes the child out of the home earlier and keeps him longer than formerly. In fact, the school almost completely absorbs the child's energy and time, so it has come to pass that what the child does not get from the public school to prepare him for life, he is in great danger of missing entirely.

Why the Training of Teachers is so Essential.—From the foregoing discussion the great need for trained teachers can be seen very readily. The teachers who simply "hear recitations" are out of date. Imparting knowledge is not the only, nor even the chief, function of the school, for there is no other time and no other place in our social economy in which the child can acquire discipline and form the habits of industry, honesty, and self-control so essential to success in life. The modern school has become a very complex affair, and the work of the teacher is correspondingly more difficult, for he must now train the body for strength and health, the hands to do, the mind to

think, and the heart to respond to right motives. This is no simple task. It ought not to be undertaken lightly. It demands professional training as well as scholarship. It calls for a knowledge of the science and the art of teaching.

What Professional Training Includes.—I. The science of teaching includes: (1) Psychology, which must always serve as a basis and a test of principles and methods of teaching; (2) Method, as a means and a guide in teaching and in making effective the principles and laws derived from psychology; (3) School Management, which seeks to adjust the agents, conditions, and factors of the school so that they shall all co-operate in the instruction and training of the child; (4) History of Education, to bring the student into sympathetic relation with the world's great teachers so that he may catch something of their ideals, enthusiasm, and self-sacrifice.

II. The art of teaching is best acquired (1) by observing good teaching, making lesson plans under guidance, and discussing the plans and work of other teachers; (2) by practice-teaching under competent and sympathetic supervision.

A Fatal Mistake for Young Teachers.—Above all, young teachers should avoid the all-too-common error of assuming that vague terms such as "personality," "natural aptitude," and "common-sense" are potent spells to charm away all the difficulties of the school-room and atone for all the deficiencies due to ignorance and lack of professional training. They can never serve as a substitute for scholarship, professional knowledge, experience, and hard work. The personality of a man is the sum total of what he is, and varies as greatly as people vary. There *is* such a thing as aptitude for teaching, but any one who will take

the trouble to read Mr. Tate's analysis of the term can judge for himself how much of it is natural and how much of it is the result of study and hard work. He says: "A man having a great aptitude for teaching must (1) have a love for children and a knowledge of their tastes, habits, and capabilities. (2) He must be a man of kind and benevolent disposition. (3) He must love knowledge and feel a pleasure in communicating it. (4) He must be a man of fervid imagination and of great enthusiasm, decision, and force of character. (5) He must be a man of respectable general attainments. (6) He must have considerable fluency of speech and powers of illustration and exposition. (7) He must have faith in the effectiveness of instruction as a means of bettering the condition of society. (8) He must be a man of quick and observing habits, and must be in the constant habit of reflecting and reasoning upon the various methods by which knowledge may be communicated to children.

"Now, as all these qualities, essential to great aptitude for teaching, admit of cultivation, it necessarily follows that the aptitude for teaching also admits of cultivation in the same degree. This aptitude for teaching, therefore, is no more instinctive or innate than any of the intellectual or moral faculties of our nature can be said to be."

No less an authority than Joseph Payne has said: "We can have little hesitation in asserting that the pretensions to be able to teach without even knowing what teaching means, without mastering its processes and methods as an art, without gaining some acquaintance with its doctrines as a science, without studying what has been said and done by the most eminent teachers, is an unwarrantable pretension which is so near akin to empiricism and quackery that it is difficult to make the distinction."

Teachers Not to Blame for Present Conditions.—Let no conscientious young man or woman who reads this chapter imagine for one moment that I am finding fault with young people who aspire to teach before completing a course in professional training. Let no such person, even with the lowest grade of certificate, feel discouraged by his lack of scholarship. Ambition, zeal, earnestness, hard study, and perseverance can do wonders. If you are made of the right stuff you can succeed. There is far more hope for a young teacher who realizes his deficiencies and studies hard to remedy them, than for a normal-school graduate who has ceased to feel the need of study and relies wholly upon experience and past attainments. But it is of the greatest importance that you should have the right conception of your work as a teacher at the very outset of your career. To insure success, your motives must be right, your ideals must be high, your standards must be correct, your spirit must be worthy. It is true that custom as well as law permits you to enter upon your work with meagre scholarship and with no professional training. For this you are not to blame, and customs and laws are hard to change. But I have shown that the school as an institution has changed very much, that its functions have been multiplied, its scope enlarged, its opportunities and responsibilities for the training of the body, mind, and heart of children greatly increased. The school is no longer a simple affair. Success as a teacher is not as easily earned as it was under the simpler conditions that once prevailed. Teachers have not sought to secure these enlarged powers and this greater authority for the school. They have not planned to encroach on the rights of parents. They have not attempted to supplant the parents in their efforts to educate their children. Parents, school authori-

ties, and public opinion have demanded these things of the public schools, and great social, industrial, and moral changes have made this demand imperative. But the people have not realized how greatly these additional demands upon the school have changed its nature and increased its complexity. They have not realized that far better teachers are needed under the new conditions—teachers with broader scholarship, greater skill, mature judgment, and more stable character. They have not realized that teachers must invest more time, more money, more energy in their preparation now than ever before, nor have they always been willing to pay higher salaries for better service. But there is improvement in these things all along the line. Let us as teachers read the signs of the times aright. Let us be in the forefront of those who labor for the welfare and proper training of the child. Let us magnify our office and seek every means of professional training within our reach. One well-trained teacher in a township or a graded school will often wake up and transform the other teachers and lift them out of a veritable stagnation of routine methods. It is a great thing to be a teacher. Agassiz wanted but one word for his epitaph—"Teacher."

Advantages of Professional Training.—Edward Everett said: "What considerate person can enter a school and not reflect, with awe, that it is a seminary where immortal minds are training for eternity?"

The average young teacher does not have this inspiring view of his work. This is especially true if he has entered upon his work with no professional training and has not even read the current pedagogical literature. The signs of the times indicate that the people will soon demand a minimum amount of professional training of all those who

aspire to teach. All teachers should welcome the time when such a requirement becomes a law in every State, for, if faithfully complied with, it would secure many advantages to both teachers and pupils.

(1) *It Would Prevent Failure.*—A young man who became one of the best teachers I ever knew entered upon his work with a third-grade certificate and with no professional training whatever. The school was a large one and a "hard" one. No young man ever worked harder or more conscientiously. But after five weeks of painful effort—"five of the unhappiest weeks of all my life"—as he often says, he was forced to resign, an utter failure. He went back to the farm completely discouraged. His ideals were all shattered, his hopes crushed, his future dark. He had planned to take a college course, but he gave up all his school plans, all his dreams of being a teacher. One day a former teacher of his came to see him, a teacher that he greatly loved and admired. She drew from him the wretched story of his failure, and so tactful were her words and so real her sympathy that she obtained his promise to go on with his college course. And her one vital question that secured the promise was this: "You have failed, but why should you wonder at that? Had you ever studied what you tried to do, or read a single book on teaching?" No, he had not. He went back to school, read everything on teaching he could find, at the end of a year secured another school, and was astonished at his own success—success in the highest and truest sense, that has made him one of the best-known and best-loved teachers of his State.

Professional study and training allied to good scholarship give the safest and quickest road to what is commonly called "success" as a teacher, meaning simply good posi-

tions and good pay. Both time and money are saved to the teacher by such preparation. Many young people with high hopes and aspirations enter upon the work of teaching without sufficient preparation, are discouraged by their total or partial failure, and drop out of the work entirely. They really had no right to expect success.

(2) *Health is Saved by Such Preparation.*—Teaching is wearing work at best, and makes large demands upon the nervous power and vitality of the teacher. Under the strain and confinement of teaching thousands of young people break down in health.

But it is the worry and irritation rather than the work of teaching that kills, and the direct cause of very much of the worry is the fact that young people undertake to do what they do not know how to do. Children find the school work irksome, and make trouble. Parents are dissatisfied. Criticism of the teacher abounds on all sides; and all of these influences react with crushing force upon the temper, the cheerfulness, and the health of the teacher.

(3) *Untrained Teachers Have no Correct Standards.*—Without some professional study and training, teachers have no correct standard of what good teaching is. They are utterly helpless to correct their own mistakes, for they are not conscious of them, and may go on day after day committing the same errors and all the while wondering what is the matter with the school. And it will not do to say to such teachers: "Just use common-sense and all will be well." Better say that it is not common-sense to undertake a great and difficult work that one does not know how to do. Common-sense alone does not build Brooklyn bridges, Siberian railways, or Panama canals. Common-sense alone would teach us that the earth is flat

and that the sun revolves about the earth. Science must come to the aid of common-sense to accomplish any important work. So it is in teaching. To say that "teachers are born, not made," sounds like an apology for indolence or ignorance. Neglect to study the science and art of teaching means that the teacher has no correct standards of what real teaching is, remains unconscious of mistakes, and must, at the very best, simply blunder his way into success.

(4) *Experience Alone is Not Sufficient.*—No amount of such unsupervised teaching alone makes one a good teacher. It rather prevents one from becoming a good teacher. True it is that by faithful study of the principles of teaching after one begins the work of the teacher, and by using all the means of professional training that one can command, the lack of previous preparation may be largely overcome; but not one teacher in twenty will put forth the effort necessary to do this. Thus their experience as teachers is of no value to them, for their mistakes and errors in teaching soon develop into habits hard to break. Most of them really dislike the work of teaching and leave it as soon as possible for other vocations; or, if they continue in the work, they are absolutely without professional zeal, become purely mechanical in their methods, and only serve to keep down wages and perpetuate stupidity.

(5) *It Would Tend to Prevent Costly Experimenting on Pupils.*—Many of the States have passed compulsory education laws. Since the State demands that parents shall send their children to school, why have not parents the right to insist that the State shall provide competent and trained teachers for these children? Yet some States have never fixed by law the minimum requirements of

teachers, either in scholarship or professional training. As far back as Queen Elizabeth's reign a wise old English school-master, Richard Mulcaster, wrote: "I conclude, therefore, that preparation for teaching requireth a particular college for these four reasons: First, for the subject being the means to make or mar all the children of our state. Secondly, for the number, whether of them that are to learn or of them that are to teach. Thirdly, for the necessity of the profession, which may not be spared. Fourthly, for the matter of their study, which is equal to the greatest professions, for language, for judgment, for skill how to train, for variety in all points of learning, wherein the framing of the mind and the exercising of the body crave exquisite consideration, as well as the stability of character of the person."

From every point of view it is perfectly clear that every young person who aspires to teach should acquire some professional training before entering upon the work of the teacher. And it is a peculiar survival of narrowness and prejudice that so many colleges and universities fail to recognize that such studies and training are as valuable, for both knowledge and discipline, as any other studies in the course. Professors who pride themselves on their ignorance of pedagogy, and look down with lofty contempt upon the normal-school graduate, should ponder these words of Herbert Spencer: "No rational plea can be put forward for leaving the art of education out of our curriculum. Whether as bearing upon the happiness of parents themselves, or whether as affecting the character and lives of their children and remote descendants, we must admit that a knowledge of the right methods of juvenile culture, physical, intellectual, and moral, is a knowledge second to none in importance."

Means of Securing Professional Training.—The first state normal school in the United States was located at Lexington, Massachusetts. It was opened July 3, 1839, with three students. Its objects were to give (1) a careful review of the studies taught in the public schools from the stand-point of teaching them to others; (2) a study of psychology to understand correct principles of teaching and right methods; (3) a practical application of these principles and methods in practice work; (4) a careful study of the history of education and the school laws of the State; (5) a high estimate of the importance and responsibility of the teacher's work, and an enthusiasm for it.

Slowly, but surely, the people are realizing the value of professional training for all teachers and are providing better and better means for such training. The heroic work of Horace Mann is bearing fruit in the founding of State normal schools, city training schools, and chairs of pedagogy in our universities. Many high schools, even in our smaller cities, provide for a year's work along professional lines for the students expecting to teach. It is no longer necessary to learn to teach at the expense of the children, that is, to learn to teach by teaching without previous training and without help, advice, or supervision. While it is not true as yet that professional training insures permanence of position and adequate pay, still the trend of public opinion is along this line, and thousands of choice, earnest young people are preparing themselves for the noble calling of the teacher, trusting that there will soon be a more generous recognition by the people of the value of the trained teacher. But these same young people will be doomed to disappointment, and will bring reproach upon the professional training of teachers, if they make the

mistake of supposing that as soon as they graduate from normal schools and become teachers they can cease to be students. No means of growth, either in scholarship or professional attainments, can be neglected by any one who hopes to achieve the best and highest success.

Professional Growth While Teaching.—Some years ago I was conducting a county institute in Iowa. A young man, a normal-school graduate, was the superintendent of schools in one of the largest towns in the county, but the county superintendent had never given him work in the institute. One day I suggested to the county superintendent that it would be very fitting to invite Professor B. to work in the institute the next year; but the emphatic reply was: "No, I shall not give him work in this institute, for he has never shown a particle of interest in the professional work in the county. He did not even attend a teachers' association that I held in his own town, and I had put him on the programme at that!" Of course I had to acknowledge that the criticism was just.

It is no disparagement of professional training to say that no student can really complete his training for teaching in any college or normal school. Practice teaching is an invaluable aid, but it cannot do everything. The student must be thrust out by himself to work out his own salvation. Only so can he develop initiative, skill as an organizer, power as a manager and disciplinarian, and ability to make friends of the school patrons. He must learn to depend upon himself. All helps, lesson plans, model exercises, kindly criticism, and advice are to be withdrawn, and he must stand on his own feet. He must still be a student in a higher and better sense than ever before, for now he has gained the power to teach himself.

Means of Professional Growth Open to the Teacher at Work.—The means of professional improvement are varied and are close at hand. Thrice happy the teacher whose training in the normal school has prepared him to turn them all to account in perfecting his professional education.

(1) *By Daily Practice in Teaching.*—Not just one or two exercises each day, as was the case in the practice school, are now required of the teacher, but from five or six classes to twenty, or even twenty-five, classes. And these classes may comprise all the studies in the curriculum. What an opportunity for practice! Here is a field in which to test educational principles, apply methods, experiment with devices, and study psychology at close range. No time is given to the teacher to write out lesson plans now; there are no model teachers to observe, no critics to point out errors, no study periods between classes, no one to appeal to in case of doubt. And yet the well-trained teacher carries the burden easily, without hurry or fretting, for there is a feeling of conscious power and mastery, and an eager desire to make each recitation an improvement on the last one.

(2) *By Studying Professional Books.*—Every teacher should aim to acquire a select working library, and he should form the habit of professional reading. Only thus can he keep from stagnation and retain the consciousness of growth. He will find such reading a constant help in his daily work, keeping him out of the ruts, suggesting new applications of old principles, and revealing to him the deeper truths that underlie all education. Teachers' reading circles have done much to stimulate young teachers along the line of professional and general reading, and every teacher ought to plan to read at least some of the books

in these yearly courses. It is the books that we read again and again that most influence our lives.

(3) *By Reading Current Educational Papers.*—It is of great importance that the teacher should keep in touch with current educational thought and progress. He must know what other teachers are doing. He should be able to select wisely the plans, exercises, methods, devices, and programmes in these journals that apply to his own work, and adapt them to meet the needs of his school and community.

(4) *By Visiting Other Schools.*—Opportunities for visiting other schools are frequent, and teachers should always make the most of such opportunities. These visits can be made very helpful as a means of professional growth, for teachers will find in every school that they visit some methods and devices very different from their own—some better, others not so good. In all such visits, assume the attitude of the learner, not that of the critic. Surely no worthy or sensible teacher will indulge in unkind criticism of the schools and teachers whose work is being inspected or make himself obnoxious in any way.

(5) *By Attending Institutes and Associations.*—Institutes have been defined as "normal schools with a very short course." They are becoming less academic and more professional each year. The institute will be an educational necessity as long as teachers are not required to have professional training before entering upon their work. It ought not to be necessary to *compel* young teachers to attend these institutes and associations, for the help, personal acquaintance, and inspiration received repay the time and effort required many fold.

All these means of professional improvement, and all other means at the teacher's command, should be utilized.

A teacher's growth ought never to cease. He ought not to "die at the top." His face should always be toward the rising sun, for he is the soul of our educational system. He is the pupils' model, instructor, leader, guide, and friend. He should be a teacher in fact and in spirit, not in name only. No work is more dignified, more important, more holy. It took a perfect man to deserve the title, "The Great Teacher."

An English writer has said: "Educational salvation lies, not in bricks and mortar, nor in sumptuous equipment, nor in courses of study on paper, nor in elaborate machinery of whatever kind, but in the subtle influence of informed and cultured men and women upon the pupils committed to their care. However thoroughly and liberally public authorities discharge their school duties in other respects, all is in vain unless the ranks of the teaching profession, in its various grades, are so recruited that the daily work of the schools is done with knowledge, skill, and sympathy. To have built schools, to have filled them with pupils, and to have devised means of supervision, are all excellent things in themselves—as machinery. It is the teacher alone who can supply the driving power."

A Final Word from W. T. Harris.—In a discussion of elementary education in the United States, W. T. Harris said: "The most important item of improvement that belongs to the recent history of education is the introduction of professionally trained teachers. It is the experience of school superintendents that graduates of normal schools continue to improve in skill and efficiency for many years. Such a teacher is constantly increasing his number of successful devices to secure good behavior without harsh measures, and to secure industry and critical attention to study. Every normal school has a thorough

course of study in the elementary branches, taking them up in view of the higher branches from which they are derived and explaining their difficult topics. This kind of work prepares the teacher in advance for the mishaps of the pupil and arms him with the skill to assist self-activity by teaching the pupil to analyze his problem into its elements. He can divide each step that is too long for the pupil to take into its component steps, down to any required degree of simplicity. The professionally trained teacher, too, other things being equal, has a better idea than other teachers of the educational value of a branch of study. He knows what points are essential and what are accidental and subordinate. He therefore makes his pupils thoroughly acquainted with those strategic positions and shows them how to conquer all the rest through these."

SUGGESTED READINGS

"Report of the Committee of Fifteen on the Training of Teachers"; Hinsdale, "Studies in Education," chaps. IV, VI, IX; Seeley, "The Foundations of Education," chaps. I, II, XII; Gilbert, "The School and Its Life," chaps. VIII, IX, X; Dutton, "School Management," chap. III; Trumbull, "Teaching and Teachers," chap. III; "Life and Works of Horace Mann" (Lee & Shepard), vol. II, pp. 103–139; Chamberlain, "Standards in Education," chap. X; Barnard, "American Pedagogy"; Baldwin, "School Management," chap. III; Page, "Theory and Practice of Teaching," chaps. I, II; Tate, "The Philosophy of Education" ("Educational Foundations," December, 1900), pp. 279–282; Horne, "Psychological Principles of Education," chap. I; Baldwin, "School Management," chap. III; Quick, "Educational Reformers," pp. 99–102; Seeley, "Elementary Pedagogy," chaps. I, III; Bagley, "Classroom Management," chap. XVI.

CHAPTER III

THE STUDY OF CHILDREN AND ITS RESULTS

The Third Requisite of the Teacher's Preparation.—The real teacher must know what he is to teach; how he is to teach; and whom he is to teach. In other words, he must have scholarship, professional training, and knowledge of children.

That parents are wofully deficient in the knowledge and ability necessary to train their own children properly is universally admitted. But if we except the one point of scholarship, or the knowledge of books, it is probably true that the average parent is better qualified to train his own children than the average young teacher is to train properly the children of other people. Love for their children parents have, for love grows with sacrifice, and years of sacrificing love are required of every parent before the child is brought up to school age. But there is no certainty that the teacher will love his pupils. He has made no sacrifice for them. He may not understand them at all. George Macdonald said: "The woman who takes into her heart her own children may be a very ordinary woman; but the woman who takes into her heart the children of others, she is one of God's mothers."

"In Loco Parentis."—By custom, school laws, and court decisions the teacher's relation to the pupil is defined in these three words, *in loco parentis*. But, unfortunately, too many teachers think of this relation as a merely legal

one—a relation that gives them the right to punish, strike, or beat a child without making themselves liable to arrest for "assault and battery." This is a most pitiful and distorted view of the teacher's relation to the child. It is, in truth, a frightful parody of the words "in the place of the parent." When a teacher assumes the rights of a parent toward his pupils, he must also assume obligations similar to those of the parent. He is under obligation to be tolerant of weakness, patient with the dull, hopeful for the wayward, lenient to the mischievous, impartial and sympathetic with all. He must be kind even in punishing, and by degrees he must acquire that almost divine characteristic of the true parent—the power to love an unlovable child.

The word parent includes both father and mother, and the teacher stands in the place of both. He represents the authority of the father and the love of the mother. He represents the united counsels and efforts of both to care for the child's health, to shield his heart from evil, to reveal the book of nature and the wisdom of the ages to his mind, to win him to pure thoughts and kindly deeds, to call out the best that is in him, and to fill his school life with joy and happiness—this is a part of what it means to stand *in loco parentis* to the child. No teacher can do this unless he studies children, learns to know them, to aspire for them, to believe in them, to sympathize with them, to sacrifice for them, to love them.

A Costly Blunder.—The greatest crime of society has been its neglect and abuse of little children. Not always have even Christian nations remembered the words of the Great Teacher: "Even so it is not the will of your father which is in heaven, that one of these little ones should perish." It was a great theological teacher who wrote:

"Since every child is born totally depraved, his will must be broken through stripes and blows and rough usage, his natural inclinations thwarted, and his childish affections repressed." But even this view of the child is nearer the truth than the theory of some modern scientists who teach that the child is born a savage. "Is there in sober truth," asks one of these writers, "any other living creature's offspring so passionate, so selfish, so noisy, so troublesome, so exacting, so offensive in some respects as the human baby?"

Perhaps such views of child nature explain why society has permitted commercial greed to send little children to work in damp mines and dangerous factories for cruel masters and under strange overseers.

Results of Neglecting the Child.—Society reaps a terrible harvest for its neglect and abuse of little children. "In all the years that I have served on the criminal bench one thought has been constantly uppermost in my mind. I have never tried a criminal case or sentenced a criminal to the penitentiary or worse, but I have felt like a giant, placed there by society to take its revenge for what society itself has made." This is the statement made recently by Judge Tuley, of Chicago, in discussing the necessity for immediate action for the salvation of friendless and wayward boys. "If I were asked to name one product of vice and crime that would soonest touch the hearts of all good people, I would say a neglected child. Every case of vagabondage has its root in some neglected child," said W. T. Harris. In "Bleak House," Charles Dickens voiced the same thought in describing the conditions of child life in the slums of London: "There is not an atom of Tom's slime, not a cubic inch of any pestilential gas in which he lives, not an obscenity or degradation about him,

not an ignorance, not a wickedness, not a brutality of his committing, but shall work its retribution through every order of society up to the proudest of the proud and to the highest of the high."

The Great Defect of the Old Education.—The old education took little pains to understand children. The State took no interest in primary education. Educational writers spoke of the younger pupils as the "fag-end" of the school for whom little could be done.

Fénelon said of the schools of his time: "There is no liberty, no enjoyment, but always lessons, silence, uncomfortable postures, correction, and threats." "Day and night," complains one teacher, "we do not cease to chastise the children confided to our care, and they grow worse and worse." In writing of a boys' school, Montaigne says: "It is the true home of correction of imprisoned youth. Do but come in when they are about their lessons, and you shall hear nothing but the outcries of boys under execution and the thundering noise of their teachers, drunk with fury. A pretty way this is to tempt these tender and timorous souls to love their books, with a furious countenance and a rod in hand." No wonder that such schools were schools of vice, that knowledge learned was soon forgotten, that pupils hated schools and teachers, and that teaching was usually a degrading and despised vocation.

The New Education Based upon a Knowledge of Children.—Rousseau was the first great writer to insist that education should be based wholly upon the nature of the being to be educated. His book, "Émile," has been called the "gospel of educational freedom for the child." According to Rousseau, the child is not all bad. He is made bad by bad example and wrong education. He is punished before he is able to know his faults. His first

gifts are chains. His desires are crossed at every stage. We make him bad, and then complain of finding him so. The child has a tendency to grow into the type of the race, and this is the education that nature gives; but we thwart nature at every step, and then are surprised that the result is deformity. Nature would have children to be children before being men. Childhood has its own way of seeing, thinking, and feeling, and nothing is more foolish than to try to substitute our ways for them.

The true aim of education is not knowledge, but how to live. The common vocation of all men is manhood, and whoever is well trained for that cannot fulfil badly any work he may do. To live is not to breathe; it is to make use of our organs, of our senses, of our faculties, of every element of our nature. This is the trade that the teacher has to teach.

A teacher! It is by considering what he ought to do that we shall see what he ought to be. He ought to be a father, or more than a father, for his ruling motive must be the love of the pupil. Recollect that before presuming to form a man, you must become a man yourself; you must needs find in yourself the example which you are to propose for others. Respect the child's individuality, and leave the germ of his character at perfect liberty to unfold itself.

These thoughts from "Émile" reveal the nature of the New Education and disclose a sure basis for a science of teaching. Pestalozzi, Froebel, and Herbart built upon this foundation. Wherever teachers have caught their spirit, school life has been transformed; for interest has banished dulness, instruction has been vitalized, and discipline has become humane.

That every child should be educated, that the State should provide public schools, that the body must be

trained as well as the mind, that rich and poor alike must be taught to use their eyes and hands, that power is developed only through self-activity, that all instruction must be adapted to the actual present needs of the pupil, that teachers must be professionally trained, and that all methods must be based on the laws of the mind—these are some of the cardinal principles of the New Education.

The Modern Teacher Must Study Children.—No one can grasp these principles or successfully apply them unless he becomes a student of childhood. Insight into child nature and sympathy with child life are absolutely essential to really successful teaching. Without these, scholarship will fail and methods and devices are all in vain.

Mr. Quick says: "It is our business as teachers to try to realize how the world looks from the child's point of view. We may know a great many things and be ready to teach them, but we shall have little success unless we get another knowledge which we can learn only by patient observation, a knowledge of the mind of our pupils and what goes on there. When we set out on this path, teaching becomes a new occupation with boundless possibilities and unceasing interest in it. Every teacher becomes a learner, for we have to study the minds of the young, their way of looking at things, their habits, their difficulties, their likes and dislikes, how they are stimulated to exertion, how they are discouraged, how one mood succeeds another. What we need is a knowledge of the child's mind with the object of influencing it."

Aptness to teach and tact in management are the results of understanding the stuff with which we work, and "first, last, and all the time this stuff is children, or, to put it more broadly, human beings." Without this knowledge of children one teacher worries, repels, fails; with it, another

teacher cheers, inspires, succeeds in the same school. Careful and constant study of children will help the teacher in many ways.

(1) *To Understand Educational Aims and Values.*—Aimless teaching is a great educational waste, but a wrong aim may be worse than no aim at all. All true aims of education grow out of the nature of the child and must be in harmony with that nature. These aims are the teacher's only true standard by which to measure educational values. There is much to learn, and the average child's school life is very short. What shall we teach him? What will it pay him best to learn? Where shall we place the emphasis in education? To answer these questions intelligently—in other words, to apply a course of study intelligently, or to plan a lesson properly, or to teach inspiringly—teachers must study their pupils.

(2) *To Avoid Mistakes.*—The teacher must realize the physical needs of the pupils, know their individual traits, understand their nervous temperament, discover their physical defects, or run the risk of inflicting upon them untold injury. Phelps's teacher whipped him one day because she thought he made ugly faces at her when he was scolded. All the other children knew that Phelps was afflicted with a nervous twitching of the muscles of his face when disturbed mentally, but this his teacher had never discovered. In spite of the fact that defects of vision and hearing are so common among pupils, the unobserving teacher still punishes such pupils for their supposed stupidity. Often the children with such defects do not know that they are defective.

A teacher who understands the nature of the nervous system will know that physical health and strength are the only sure basis for good mental work; that to the healthy

child, play and activity are as necessary as food; that every mental act leaves an impress upon brain cells; that fatigue lessens the power of attention, weakens the memory, and decreases power of will; and that the work of the school should be done under as favorable conditions as possible, with the minimum of fretting, worry, and irritation. Such a teacher will look well to the proper heating and ventilation of the school-room. He will give attention to the seating of pupils, their habits of sitting and standing, their breathing, their signs of fatigue. He will not expect as vigorous work late in the afternoon as in the early part of the day, and will seldom keep pupils after school to make up time worse than wasted, it may be, during school hours.

Above all, the teacher who studies his pupils carefully will avoid the mistake of assuming that children can be easily deceived. His attitude toward them will not be one of suspicion and distrust, but of frankness and sympathy. He will not punish actions till he inquires into motives. He will make some allowance for childish ignorance, faults, failings, and thoughtlessness, for all these are quite characteristic of grown-up folks. And he will not forget that the pupil probably reads the mind of his teacher better than the teacher understands the mind and heart of the child.

Henry Sabin says: "Children are living, sentient flesh and blood; they have bodies to be cared for and trained, minds to learn and expand, hearts to love or hate, souls to aspire. They read character as a book; they are quick to respond; they meet distrust with distrust; they greet confidence with confidence; they measure out hate for hate and love for love. Of all time in a child's life, that spent in school is the most precious."

(3) *To Select and Apply "Methods" and Devices Intelligently.*—"Methods" and devices can never be a successful substitute for scholarship and knowledge of children. They are not meant to be the veneer of ignorance. They cannot be acquired by imitation, for they are from within and not from without. Correct method in teaching is based upon fundamental laws and principles. These laws and principles are derived from the nature of the mind, not solely nor chiefly the adult, mature, finished mind, but the unformed, immature, yet developing mind of the child. To acquire these laws and principles, teachers must study children, not simply books about children, but real, live, ordinary boys and girls. Some teachers who have never studied psychology from any book become skilful instructors, and the unthinking critic concludes that psychology has no message for teachers. But the fact is that all teachers are forced to study psychology first hand, and some of them acquire unusual power to understand children and to select and apply teaching devices successfully. Every teacher who does not by some means acquire this knowledge of children must select his materials, methods, and devices without any definite principles to guide him. It is also apt to be the case that the teacher who selects so-called methods and exercises in this indiscriminate fashion will find some of them more interesting or easier to manipulate or more showy than others and will use them for the express purpose of making a show when visitors are present, thus teaching his pupils most effective lessons in sham, dishonesty, and fraud.

(4) *To Consciously Shape the Character of the Child.*—All the greatest educators practically agree that the supreme aim of education is morality, or character. Now character is a plant of slow growth. It is the result of all the influ-

ences that have come into the child's life through heredity, environment, and education. How much the school can do for the child is a disputed question. Those who believe in the omnipotence of heredity leave very little place for making character through the training of home and school. Such writers say that what nature has denied to a man, education cannot give him, that his destiny is determined by heredity, and they point to the notorious Juke family to prove their contention. They claim that the neglect of heredity is the source of many false educational theories, such as regarding the child's mind as a *tabula rasa*, wax to receive impressions, clay in the hands of the potter, or marble out of which the teacher may carve an angel.

On the other hand, the believers in the power of favorable environment teach that we can make of the child about what we will. They say that the doctrine of heredity, as usually held, does not apply to children as it does to the lower animals, for any such application would render even the wisest efforts of training useless. "For if at birth the child's bodily and mental organization is complete, if the acquired characteristics of parents are handed down to offspring, then there the matter ends. Every remarkable parent would have equally remarkable children, and every deficient person would curse his descendants by a like deficiency. Work, training, striving after noble ideals would be useless and silly." They say that the trouble with the little Jukes was that they lived too long with the big Jukes.

There should be no quarrel between the advocates of heredity and those of environment. The safe way lies between these two extremes. The former should preach the doctrine of a better fatherhood and a more intelligent

motherhood, and the latter should unite in a crusade for a purer early environment for every child in the home and in the school and on the street, more kindergartens and better primary schools. Thus we shall see more clearly both the limitations and the possibilities of the school. If we must err on either side, I consider it far safer to insist that the school can do very much to change the child's capabilities, character, and destiny. If we teachers have any right to draw public money it is because we help the child to become something that he never could become without us—something wiser, something better, something more useful, something happier. How do we do this? We do it by causing the pupil to feel, to think, and to do what he never would feel or think or do without the school and the teacher.

No teacher, at least, can afford to adopt the theory that heredity is all in all in education. Is it not true that in the great majority of our discouraging cases—our dull, wayward, lazy, vicious pupils—we are conscious of the fact that we are contending against years of bad home or street environment as much as we are against a bad heredity?

Starting, then, with the firm belief that the teacher and the school can do very much to arouse the child's powers, change his life for the better, and shape his character aright, is it not perfectly clear that the teacher must understand him so well that he can consciously direct his feeling, thinking, and willing?

The child is not conscious of his own mental processes; he does not know whence they come, nor why he has them, nor what he should do with them. He learns because it is his nature to be active. He bothers his head very little about aims or methods or principles of learning. But

the teacher must not be ignorant of all these processes. He must know that the child's character will be the result of what he thinks and feels and does. In other words, the teacher must know how to consciously direct the thinking, feeling, and willing of his pupils. To control thus the minds of his pupils, the teacher must know their minds. He must call forth from them as individuals and as a school the reactions or responses that are helpful in shaping their character and repress those that are not thus helpful. He does this by supplying appropriate stimuli to call forth interest, attention, thought, and action as responses to such stimuli. If by his superior knowledge, his enthusiasm, his skill in teaching he can so present a reading lesson or an object lesson that for fifteen minutes the pupils in his class give him their interest, their undivided attention, their thought, then, and only then, has he become a potent factor in making and shaping, according to his own ideals, their lives and character. This is true teaching. This is character-building.

Methods of Studying Children.—These methods are known by various names; such as the individual method, by which is meant the careful record of the events in the life of an individual child, and the collective or statistical method, which is the examination of a great number of children to find out what to expect of the typical child.

Other methods, or ways, of studying children are by making miscellaneous written collections with little regard to time or aim; by personal reminiscences of one's own childhood; by undirected observation in every-day home and school life; by studying the personal letters, journals, and biographies of children; by the study of childhood as portrayed in art and literature; and by the direct study of children through questioning, observation, and experiment.

Aids to Method.—More important to the ordinary teacher than any particular method of study is the spirit and tactfulness used in applying the method. Some one has said: "The oldest daughter of a large family will nearly always make a good primary teacher." From close association with the younger children of the family and attempts to play the mother to them, she has unconsciously acquired a good knowledge of children. This close association with children is a necessary aid to any method. Conversations with parents, visits to the home of the children, keeping a record book, trying to discover the reasons for what the child does, and reading some good books on child study will often produce a wonderful change in the teacher's view of the pupils and transform the spirit of his school. This reflex influence of such study upon the teacher himself is the most valuable thing about it. If undertaken in the right spirit, it will not fail to make him more observing of children at all times and in all places; it will broaden his sympathy and quicken his love; it will give him the power to individualize his pupils and to plan for special needs and cases; it will make him alert to discover physical defects, fatigue, and nervousness; it will keep him from unjust punishments and harshness, and reveal to him the beauty and the blessedness of being trusted, admired, and loved by God's little ones.

Results of Teaching without a Knowledge of Children.—The results of attempting to train children without understanding them have been pointed out by Herbert Spencer in his great book on education: "The right class of facts is withheld, while the wrong class is forcibly administered in the wrong way and in the wrong order. Second-hand facts are taught instead of letting the child use his senses. Instruction is carried on with but little reference to the

laws of mental development. Nearly every subject taught is arranged in abnormal order; definitions and rules and principles are put first. Rote learning is the rule. The art of applying knowledge is not taught. Most of the knowledge gained is dropped from memory as soon as examinations are passed. What with perception unnaturally dulled by early thwarting and a forced attention to books; what with the mental confusion produced by teaching subjects before they can be understood, and in each of them giving generalizations before facts; what with making the pupil a mere passive recipient of others' ideas; and what with taxing the faculties to excess, there are very few minds that become as efficient as they might be."

Effects of Child Study, Direct and Indirect.—The first great wave of enthusiasm for child study in this country has receded. We have fewer child-study clubs, fewer syllabi, fewer publications along this line than we had a few years ago. It has even been suggested that the whole movement was a "fad" and of little educational value. On the contrary, the child-study movement emphasized the necessity of reconstructing our entire school system on a scientific foundation, and this foundation is and always must be the nature and capabilities of the child, or the being to be educated. The child-study movement has influenced our entire educational theory and practice most profoundly, and child study to-day is saner and more productive of good than ever before. A brief summary of the results of child study will make these facts clear.

I. *Imitation and Motor-Activity in Children are of Great Value in Education.*—Teachers have discovered that imitation and motor-activity are two of the strongest instincts of the child, and that these instincts may be used as a most effective means in the proper education and

development of all children. This view of the child as a self-active being, always open to receive impressions by suggestion and ever striving to express his ideas through bodily acts, has profoundly influenced our courses of study and our methods of instruction:

(1) By emphasizing the value of play and by introducing the freedom and spirit of the kindergarten into all the grades of the school.

(2) By demanding that since children imitate so freely they shall have placed before them only correct models in art, music, literature, manners, and morals, and shall be safeguarded against coarseness in speech, "rag-time" music, bad pictures, and horrible stories.

(3) By introducing music, drawing, nature study, and all forms of hand-work into our courses of study, in order that through his voice, hands, feet, and body the child may express himself, clothe his ideas in concrete form, give body to spirit and form to thought. This tendency is seen in the cutting, modelling, painting, drawing, making, singing, and dramatizing which form so large a part of the daily work in every up-to-date elementary school.

(4) By recognizing the utter folly and uselessness of attempting to repress the child's motor-activity. For this reason the discipline in good schools has been revolutionized. Expression has taken the place of repression. Direction of activity has been substituted for suppression. The "hear-the-clock-tick" ideal of good order has disappeared.

II. *The Child's Physical Powers Must be Safeguarded.* —Child study more than any other cause has led to a remarkable improvement in school architecture and school sanitation. It has been demonstrated that in children vigorous mental action depends upon bodily health and exercise. This has been accomplished:

(1) By examining great numbers of school-children and revealing the alarming prevalence of defects of vision, hearing, and physical structure caused by school work under improper physical conditions.

(2) By showing the causes and disastrous effects of fatigue, and calling attention to the fact that every form and kind of school work require the expenditure of nervous energy on the part of the child.

(3) By disclosing the true principles that ought to govern the making of a programme so as to secure the most favorable time of the day for the hardest studies and to apply intelligently the old proverb that "a change of work is rest."

(4) By convincing school officers that the money expended to secure comfortable seats, proper heating, good ventilation, and sufficient light in school-rooms is not wasted.

(5) By emphasizing the need of physical training and the desirability of physical examination for all teachers and pupils.

(6) By demanding that methods of teaching shall conform to the laws of the child's physical growth; that the larger muscles shall be trained before the finer ones are called into action; that over-pressure, worry, and nervous strain shall be avoided in every possible way.

III. *Education Must be Based upon the Rational Laws of Mental Development.*—Child study has revealed some of the great laws that govern the child's mental development and given us a rational view of the processes involved in this development:

(1) By proving that the old view of the child's mind is entirely inadequate to serve as a foundation for a scientific education; that study of the old faculty psychology from

text-books merely may be of no value to the teacher; and that the problem of elementary education should be viewed, not from the stand-point of the finished, matured mind, but from that of the growing mind—the mind in process of becoming.

(2) By establishing the principles that every child passes through certain quite definite stages of development; that this development is, in a general way, and with numerous "short cuts," an epitome of the progress of the race; that the child's mental and spiritual growth is not a steady and continuous progress, but is a rhythmic process consisting of alternating epochs of rapid growth and slow growth, and varies as greatly as does the child's bodily development; that throughout this development of the child new instincts and capabilities are continually cropping out, so to speak, that predispose the mind to receive readily certain kinds of instruction; and that to discover the growing-point in the child's development, the leading interest, the opportune moment for any special kind of mental experience, and to suit instruction to this felt need is prime educational wisdom on the part of the teacher.

IV. *Systematic Moral Instruction Must Have a Place in Our Public Schools.*—Child study is preparing the way for a correct and effective system of moral training in our public schools:

(1) By demonstrating the need of such training and insisting that the law of unity in the child's development precludes the possibility of segregating the child's moral education from his physical and intellectual growth; that morality cannot be taught as a mere abstraction apart from real life, nor acquired as an accomplishment after the child has finished his intellectual education; that the child is a moral being in the school as well as in the home and the

Sunday-school, and that moral impulses and emotions must find expression in right conduct if they are to become a permanent part of the child's character.

(2) By calling the attention of teachers and parents to the importance of the period of adolescence in the moral development of boys and girls. It is, in fact, a rebirth, a making over, a period of self-discovery. Many children at this epoch seem to acquire entirely new physical and moral characteristics. Their ideals change. Old interests disappear and new instincts are born. It is a period of unrest, of uncomprehended longings, of desires for new experiences, new scenes, new companions. It is a time of doubt, of reaction against authority, of debate and speculation. If properly taught and guided by wise and sympathetic teachers and parents during this critical period, the moral trend is upward and becomes fixed for life. Most religious conversions occur in this period. Without such teaching and guidance, the result is too often a juvenile criminal.

V. *Intelligent Child Study Can Transform the Spirit of the Individual Teacher.*—Aside from its scientific results, child study has been of untold value to the home and to the school by its reflex influence upon every conscientious student of children.

(1) It has stimulated women's clubs and other organizations to make heroic efforts to secure a more rational treatment of juvenile criminals and defective children of all classes.

(2) It has aroused public interest in kindergartens, compulsory education laws, child-labor legislation, and pure-food laws.

(3) It has brought the home and the school into closer and more sympathetic relations.

(4) It has prevented teachers from making serious mistakes in discipline and inflicting untold harm upon pupils by unjust treatment.

(5) It has made teachers better observers of their individual pupils; created within them a more worthy ambition, a more appreciative spirit, a more loving sympathy, a more tender conscience, a keener sense of their own opportunities and responsibilities as teachers, and inspired them with a deeper reverence for the little ones intrusted to their care. In the words of President H. H. Seerley: "From an educator's stand-point, the province of child study is to make independent, soul-inspiring teachers: those who can touch human life in its beginnings and attain notable results, those who are guided by principles of science and not by mechanical inventions. There are limitations to human achievement, and child study can determine them; there are correct policies for management, and child study can outline them; there are true methods of instruction, and child study can divine them; there are real results to soul effort, and child study can anticipate them."

These Three, but the Greatest of These Is Love.—I make no apology for this somewhat lengthy discussion of child study. No matter how perfect a teacher's scholarship may be, nor how extensive his professional training, if he has a face which is never illuminated with sympathy, and a heart devoid of affection for little children, he is not—cannot be—a *good* teacher. The teacher who gives nothing of his heart to his pupils will get no affection from them.

The Loveless School.—In speaking of such a teacher, Stephens says: "It was ever a contest between teacher and pupils. She had no love in her heart, and no love rose up to meet her. So her days were filled with strife—

the bad that was in her calling forth all the bad that was in her school—all of it concentrated against herself." And again: "The professional skill required to save a human life in the face of a disease of the body is nothing compared to the cultivation of a human soul. A county superintendent who carelessly licenses a coarse, ignorant person to practise on little children is to be pitied because his crime is so great. First of all requirements in the character of a teacher should be the power to love children. Without it a teacher is a failure." We can no more think of a good school without love than we can think of an ideal home without love.

Nature of the Teacher's Love for His Pupils.—The love of the teacher for his pupils is not a mere sentiment, it is a principle. It is not simply the natural human love we feel for those who love us, but it has an element of that divine love suggested in the words, "We love Him because He first loved us." The teacher's love is not the artist's love of an object just because it is beautiful. Who can help loving a beautiful child, such children as Browning paints for us in the "Pied Piper of Hamelin"?

> "All the little boys and girls
> With rosy cheeks and flaxen curls
> And sparkling eyes and teeth like pearls,
> Tripping and skipping, ran merrily after
> The wonderful music with shouting and laughter."

Any teacher can love such children as these. They are from the best homes. They are well dressed, are bright and mannerly, and are full of joy and gladness. They are loved at home.

Pupils Who Most Need the Teacher's Love.—But there are pupils who are not so fortunate. They come from

unhappy homes. They have not been well trained. They are sometimes untidy, poorly clothed, coarse, vulgar, deceitful, sullen, cruel. They have never loved, because nobody ever loved them. They are little Ishmaelites. Here is the teacher's trial and his opportunity. If he dislikes such a pupil, the pupil will pay him back in dislike, and dislike will soon grow into hate. But if he can find some door to such a child's heart, he may save a soul from death. And how can he find this door? The only way to find it is to study the pupil, find out his past life, discover his interests, see him in his home, make yourself interested in him; for interest will grow into sympathy and sympathy will blossom into love—love founded on principle—and with love all things are possible.

An Illustration.—One day a teacher in the eighth grade of a certain school reported one of her pupils to me for a very serious offence. His name was Alfred, and he was the largest boy in her room, coarse, awkward, brutal. The teacher informed me that he had always been a troublesome pupil and that she could not put up with him any longer. It was my first year as principal of the school, and I knew nothing of the boy's home life. When I called him into my office and talked with him about his conduct, he was so defiant and rebellious that I was greatly irritated, and concluded that I would give him a severe whipping or report him to the school board for expulsion. Feeling that I ought to consult his parents before punishing him, I asked him to get his hat, and we went to his home. It was a little, dingy, one-story house of two rooms—rooms as bare and untidy and cheerless as I had ever seen. His mother was at home. I stated my errand, told her what Alfred had done, and said that I had decided to whip him or expel him. To my surprise she seemed utterly indiffer-

ent and said I could do as I pleased. As I turned to go away the door opened and a man entered that I knew right away was Alfred's father. He was a butcher, a large man with a most repulsive face. I explained to him why I had come, and when I had finished he went across the room to where Alfred was standing, struck him in the face, and then turning to me said, with oaths and curses, never to trouble him again about the boy, but to kill him if I wanted to. I took Alfred's arm and we walked back to the schoolhouse together. All my bitterness toward him was gone, and in its place a great pity and tender sympathy for the boy filled my heart. I did not need to tell him so in words; he felt it and understood it all. His teacher, at my request, took him back, and when I told her what had happened in Alfred's home she was greatly shocked. Her attitude toward him changed, and he never again caused us the least trouble.

The Miracle of Love.—No one was ever reformed by hate. At Stanz, Pestalozzi gathered around him eighty beggar children, ignorant, ill-mannered, many of them vicious. At the end of a few months he said of them: "Amongst these wild beggar children there soon existed such peace, friendship, and cordial relations as are rare even among actual brothers and sisters. Even my punishments never produced obstinacy, because all day long I was giving them proofs of my affection and devotion." No wonder that some one said of Pestalozzi's school: "If ever there was a miracle, Pestalozzi wrought one at Stanz." It was the miracle of love. Only thus can the work of teaching be truly dignified and lifted above the plane of drudgery. Francis Parker said: "Nothing that is good is too good for the child; no thought too deep; no toil too great; no work too arduous, for the welfare of the child

means happier homes, better society, a purer ballot, and the perpetuity of republican institutions."

This chapter has been written in the hope that it may help young teachers to avoid some serious mistakes in teaching; may open their eyes to the supreme importance of studying children; may point the way to pursue such study with success; may keep them from regarding their daily work in the school-room as mere drudgery; may help them to help their pupils more effectively and more joyously.

The Making of a Teacher.—We have now discussed the three great factors in the making of a teacher—scholarship, professional training, and the study of children. Any person who has really made this preparation thoroughly may enter upon the work of teaching with reasonable assurance of success. Of course, in emphasizing these three lines of preparation, we do not overlook the fact that there are many other qualifications that teachers must have in order to achieve the largest success, such as tact, good judgment, sound health, patience, decision, dignity, good manners, business ability, and, above all, a character which is a fit model for pupils to imitate. Any person who has read the preceding pages will fully understand that all these qualities have been implied in the threefold preparation that has been so strongly emphasized.

Horace Mann's Testimony.—When Horace Mann summed up his impressions of the public schools of Prussia and Saxony, he said: "In some of my opinions and inferences I may have erred; but of the following facts there can be no doubt: (1) During all this time I never saw a teacher hearing a lesson of any kind (except a reading or spelling lesson) with a book in his hand. (2) I never saw a teacher sitting while hearing a recitation. (3)

Though I saw hundreds of schools and thousands—I think I may say, within bounds, tens of thousands—of pupils, I never saw one child undergoing punishment or arraigned for misconduct. I never saw one child in tears from having been punished, or from fear of being punished."

Volumes could not make any clearer the importance of having well-prepared teachers in every school. "No unskilled hand should ever play upon a harp whose sounds remain forever in the strings."

SUGGESTED READINGS

Baldwin, "School Management," pp. 12–26; "Transactions of the Illinois Society for Child Study"; Barnes, "Studies in Education," pp. 5–14, and index; Rousseau, "Émile," books I and II; Sully, "Ways of Children"; Sabin, "Common Sense Didactics," chap. V; G. Stanley Hall, "Aspects of Child Life and Education," pp. 1–52 and 142–204; Wray, "Jean Mitchell's School"; J. M. Baldwin, "The Story of the Mind," chap. VIII; Gordy, "A Broader Elementary Education," chap. IX; Oppenheim, "The Development of the Child," chap. IV; Parker, "Talks on Pedagogics," chap. I; Harrison, "A Study of Child Nature," chap. II; Warner, "The Nervous System of the Child," chap. III; Raymont, "The Principles of Education," chap. V; Gilbert, "The School and Its Life," chap. V; Kirkpatrick, "Fundamentals of Child Study."

CHAPTER IV

THE STUDENT TRANSFORMED INTO THE TEACHER

Essentials in the Making of a Teacher.—In the preceding chapters the essential requisites in the making of a teacher have been discussed. It has been shown also that the student who begins the work of teaching must continue to be an earnest student. Only thus will he complete his transformation into a real teacher and truly enter the circle whose members can speak of their work as a teaching profession. At first, this study will naturally take the form of the preparation of the daily lessons, but as the teacher gains in experience and ability in lesson-planning, his study should take on a more general character; for to keep growing he must read the current educational literature, the best professional books, and something of general literature. He must attend teachers' associations, visit other schools, travel, and use every possible means of acquiring knowledge, skill, and efficiency as a teacher.

Stages in the Teacher's Evolution.—Spencer maintains that there are three phases through which human opinion on any subject must pass: (1) the unanimity of the ignorant; (2) the disagreement of the inquiring; (3) the unanimity of the wise. In their development, teachers are subject to this general law, and while their practice may not be as good as their theory, it is evident that it cannot greatly surpass their theory. We shall expect, then, that

in learning the art of teaching there will be three distinct stages of growth.

(1) *The Stage of Mechanical Imitation.*—In this stage the teacher is ignorant of the laws and principles of teaching. He knows almost nothing of the nature of the teaching process. He can form no estimate of the real contents of the pupil's mind nor discover the growing point in the child's mental development. He teaches as he has been taught. He is a blind copyist of devices and so-called "methods," and inflicts them upon all children regardless of age, ability, or previous experiences. His work is purely mechanical, without aim or plan, and he is absolutely dependent upon text-books. Courses of study are not understood by him, lessons are assigned by pages, pupils are not taught how to study, "keeping order" requires all his energies, and the school work is dead, depressing, fruitless. As one writer says: "There are even those who call themselves teachers who do not know whether they are teachers or not. They actually cannot tell what teaching is."

(2) *The Inquiring Stage.*—Unless the teacher is an absolutely hopeless case he is not content to remain long in this mechanical stage. He discovers that there is something wrong with the school, and he begins to suspect that the cause may be in himself rather than in the pupils. He is dissatisfied with the results of his work. He seeks light. He reads books on teaching. He attends a normal school. He experiments, inquires, thinks. Gradually the nature of the teaching process unfolds before him. Laws of mental development and principles of teaching assume definite form in his mind, and on these he begins to build a sound method of instruction.

(3) *The Philosophic Stage.*—Building his method on fundamental laws and principles, the teacher soon grows

out of imitation into originality, out of mechanism into freedom, out of chaos into system and order. He sees in each child the possibilities of all that the race has accomplished. He drafts all history and science and psychology into his service. The course of study becomes alive with meaning, and now he "teaches as one having authority and not as the scribes." The whole spirit and work of the school have been changed because the teacher has been transformed.

Other Qualifications.—Many writers on school management attempt to catalogue all the virtues required of a teacher. Among those named are good health, courtesy, neatness, honesty, self-control, sympathy, decision, cheerfulness, patience, enthusiasm, personality, truthfulness, sincerity, common-sense, and character. It is a formidable list of qualities, and we do not propose to discuss them. In fact, they are characteristics that belong to all good men and women. Of course, one must possess something of these virtues to be a good teacher or to be a good anything. It is obvious that the three essential requisites of the teacher already discussed imply most of these virtues. No one becomes a scholar without some enthusiasm for knowledge, some honesty of purpose, some self-denial, some love of truth. Faithful daily study of one's lessons as a teacher cannot be carried out without firmness of will, system, patience, and a sense of duty. Professional training as a teacher implies that one has seriously faced the problems of life and that he has not been greatly influenced by sordid motives in his choice of a profession. Intelligent child study cultivates observation, patience, sincerity, and sympathy.

Unconscious Preparation for Teaching.—There are, however, some things that normal schools and colleges cannot

teach, and much of the most valuable preparation for teaching is acquired unconsciously. Just as little girls playing with their dolls, feeding, dressing, rocking them to sleep, are unconsciously preparing for the duties of the home, so children in playing school, in their games and stories, in managing their playmates, are preparing to become successful teachers. As the girl becomes older, and has to play mother, it may be, to her younger brothers and sisters, and learn how to comfort them in their troubles, to settle their childish disputes, to bind up their hurts and bruises, to entertain them with games and stories and pictures, she is unconsciously acquiring the power of winning the hearts of children. And when she goes out from the home to become a teacher, the children understand her, and she knows them. Marked success crowns her work from the first day, and people say that she is a "born teacher," or that she succeeds because she has "common-sense." But there is no mystery about it. Her "unconscious preparation for teaching" has been an important factor in her success.

Preparation for Responsibility.—Suppose two young men of equal age and ability to graduate in the same class of a normal school. They have had equal professional training. One of these young men is the son of well-to-do parents. They have selected the school that he shall attend, and paid his expenses. He has never decided important questions for himself, has never learned to rely on his own judgment in critical moments. The other young man has had to earn his own way, choose his own course, decide his own problems. He has borne responsibility from boyhood. He has formed the habit of independent judgment. Both young men secure positions as principals of small graded schools. The problems in such

schools are many and difficult; they cannot be put off, but must be met and solved. Important decisions must be made by the principal. No one else can decide for him. If he has not been used to deciding important questions for himself, has never faced responsibility, has never learned to trust his own judgment, he is in great danger of making very serious mistakes. No wonder that one of these young men succeeds, the other fails. Again, people say that one succeeds because of his common-sense and personality, while the other fails for lack of these qualities. But there is no need to darken counsel by words. Success and failure are effects, and must have adequate causes. The plain and simple fact is that preparation for responsibility is of slow growth and is often an unconscious process.

Personality.—From these illustrations we may, perhaps, better understand the meaning of this much-abused term. By the personality of a man we do not mean what he thinks himself to be, nor what other people think him to be, but what he really *is*. And this real self is the sum total of all the influences that have consciously or unconsciously entered his life, all the subtle influences of race heredity and family ancestors, all the potent factors of early environment in home and church and neighborhood, all the thoughts of his past, all the emotions of his heart, all the decisions of his will, all the lessons he has learned, all the deeds he has done. All these added together are his personality.

The personality of an individual is not a fixed quantity; it varies with his experience and grows with his growth. It has strong points and weak points. It is partly good and partly bad. If personality is the cause of success, it is also the cause of failure. And the strongest factor of all

in shaping this growing personality, in strengthening the weak places and in overcoming the bad, is individual effort. Any other doctrine is educational fatalism and is not to be tolerated for a moment. The author of "Mental Growth and Control" says: "Make up your mind that your whole life will be a struggle—a struggle against weakness and temptation, against sickness and misery, against shams and falseness of all sorts. There will be a struggle with the world, with open enemies, with yourself. In this struggle, ancestry counts for something, but not much; social position is good enough to amuse one's self with in times of relaxation; wealth has advantages which in fortunate cases may be great enough to offset its disadvantages. But the man who sees in life the opportunity to express himself in the largest terms, who, after ascertaining what faculties he has, determines to develop them to the highest possible efficiency, who is capable of seeing the sweetness and joy that lie all about him, who being proud dares not allow his body or mind to be defiled, he is the one who obtains the big rewards, the big successes. There is no mere theory in this counsel. It is the hardest kind of hard sense." And again: "You must by all means acquire the nice poise of bearing and demeanor that is a sign of a well-balanced mind. Your manners must be even, easy, showing faith in, and respect for, yourself. No cringing to your worldly superior or bullying your worldly inferior may be tolerated for an instant. The cringing would show you to be a coward, the bullying would mean both cowardice and viciousness. You must learn how to be direct, simple, frank; you must know how to look your fellow-man straight in the eye, how to be courteous and deferential to women, how to be affectionate and patient with children."

And all this means that in the making of a teacher the teacher's own will and effort are the true causes of his success and a lack of will and effort is the real cause of failure. No teacher will succeed who is always looking for an easy place, who wants the maximum of salary with the minimum of work, who shirks daily preparation and is content to follow the line of least resistance. The right kind of personality in the teacher, as in every one else, is developed by facing duty, by adhering steadily to a given plan or line of action, by never sacrificing a principle, by holding the attention upon an idea until it is strong enough to become a motive, by never permitting our best impulses and emotions to evaporate without decision and action, by tempering the will along the line of greatest resistance, and by deliberately and cheerfully doing disagreeable things that come to us in the line of duty.

Common-sense in Teaching.—Common-sense may be defined as the right kind of personality in action. Sir William Hamilton says: "Common-sense is native, practical intelligence, natural prudence, mother-wit, tact in behavior, acuteness in the observation of character in contrast to habits of acquired learning or of speculation." This is the popular meaning of the term, and so it is assumed that all one needs for success in any line is "just common-sense," meaning by this term native intelligence. Perhaps this is the real reason why people so complacently tolerate ignorant, untrained teachers in the schools—teachers with the lowest grade of certificates and no professional knowledge whatever—and pay them a little less than is paid to section hands on a railroad.

Common-sense is not wholly, nor mainly, native intelligence. It is chiefly acquired. A man may acquire this quality in one direction or in dealing with one set of condi-

tions, and be totally lacking in common-sense in some other direction. General Grant had military common-sense but utterly lacked financial common-sense. Some otherwise successful teachers show very little common-sense in regard to their conduct outside the school-room. It is clear, then, that common-sense along any given line is mainly the result of experiences often repeated, the result of thinking and acting along certain lines, reasoning out certain processes until the judgment acts automatically. Common-sense is a "short cut" in reasoning. It is the ability to decide immediately and unerringly upon the best course of action under given circumstances. It is unconscious or instinctive judgment, the result partly of inheritance, but mainly of education, training, and previous experience. In this sense it is of the greatest value to the teacher, for it is the power of doing and saying the right thing at the right time and in the right way.

Initiative and Executive Ability.—The last step in the transformation of the student into the teacher is the acquirement of power to bring things to pass. The teacher is not all instructor; he is organizer, ruler, and trainer. These duties require initiative, executive ability, power to set other people to work and to plan and direct their work wisely. Very often we see men with this rare power of bringing things to pass directing the efforts of other men possessing far greater scholarship than themselves. Power of initiative and executive ability command the highest value in the labor markets of the world. Men are dazzled by deeds, and even children like to see things come to pass. The whole world admires the man who *does* things. This power cannot be acquired wholly in normal school or college nor in the quiet of one's study. It must be wrought out in the midst of the world's work and

conflicts and in touch with the great throbbing life of the race.

Excuses for Failure.—The unsuccessful teacher will have many excuses for his failure. "It was a hard school." "The school board did not support me." "The parents did not make their children mind." "The last teacher had let the pupils do as they pleased." These are sample excuses of the teachers who fail. And it is possible that one failure in twenty may be due to some cause outside of the school-room and the teacher. But it is doubtless true that in nearly all cases of failure the fault is in the teacher. With better scholarship, better method, more tact, greater force of character, and a proper conception of the teacher's work there would have been no failure.

No Impossible Ideal.—In these chapters on the "making of a teacher" no impossible ideal has been presented. It has not been assumed that the task of making one's self a teacher is a short one or an easy one. Nor has it been implied that a young man or a young woman should master all wisdom, virtue, and knowledge before beginning the work of teaching. Progress in scholarship has been insisted upon, professional training has been emphasized, the necessity for studying children has been pointed out, growth in personality, common-sense, and character has been explained—all these things have been shown to be possible, not for the chosen few only, but for all teachers everywhere. No one can justly expect that all teachers, or any teacher, shall be endlessly patient, free from mistakes, always perfectly just, a miracle of good temper, unfailingly tactful, and unerring in knowledge. But people have a right to expect that all teachers shall have fairly accurate scholarship, some professional training, average mental ability, moral character, some aptness to teach, and

that they shall covet earnestly the best gifts. These things the public should demand of the teacher. And through intelligent purpose and study, through steady effort and constant upward-striving, these things are possible of attainment by every teacher.

Importance of the Teacher's Work.—There is no doubt that there are thousands of children in our schools to-day who, if they come into real living contact with an inspiring, sympathetic, capable teacher, will be a power to influence their fellow-men. But without such contact and inspiration their powers will lie dormant, the favorable time for learning will pass, their brains will become less plastic, and they will be doomed to live on a low intellectual plane, all the time conscious that life might have been so different. A business man of very meagre education, but worth a hundred thousand dollars, once said to me: "I would give every cent I am worth if I could go back and get a good education." The teacher must help the pupil to discover himself. Otherwise the pupil may repeat in his own life the tragedy described in Gray's "Elegy":

> "Some mute, inglorious Milton here may rest,
> Some Cromwell guiltless of his country's blood."

SUGGESTED READINGS

Oppenheim, "Mental Growth and Control," chaps. I and XII; Drummond, "The Alchemy of Influence"; Raymont, "The Principles of Education," chap. XVIII; Morgan, "Studies in Pedagogy," chap. XVIII; Seeley, "The Foundations of Education," chap. XXIII; Barnett, "Common Sense in Education and Teaching," chap. XII.

PART II

THE TEACHER AS ORGANIZER

CHAPTER V

NATURE AND IMPORTANCE OF SCHOOL ORGANIZATION

The Five Phases of the Teacher's Work.—Organization, management, instruction, training, and discipline are the five main functions of the teacher. In a broad sense all of these processes are included under the term School Management or School Economy. In rural schools, all five of these functions are combined in one and the same teacher; and this is also true of small graded schools. In large graded schools, in which the law of the division of labor can be applied, a teacher may perform only one or two of these functions. One teacher may be set apart to give his entire time and attention to organization and management, while other teachers give their whole time to instruction. But in every case where a teacher has charge of a room, or grade, of thirty to fifty boys and girls, that teacher must unite within himself the offices of organizer, manager, instructor, trainer, and ruler. In the daily work of the school these functions blend and mingle, moving forward together; but for the purpose of clear discussion the lines of division between them must be observed.

Organization Must Come First.—Organization must prepare the way for all the other work of the teacher and the

school. Without it proper instruction, training, and discipline are impossible. The great law of school organization is the law of co-operation. The object of organization is to make this law effective.

To organize a school is to bring all the classes represented in the school, all the educational forces of the community, into such relations of harmony, union, and efficiency that the aims of the school may be fully realized. Raymont says: "Organization signifies, in general, the arrangement of the parts of a complex whole with a view to its smooth and effective working." A school is organized when the pupils are properly classified and graded and all the work of the school is definitely arranged and programmed. The objects of organization are (1) to secure steady and productive work from each member of every class all the time; (2) to remove friction, prevent confusion, forestall disorder, and save time and energy; (3) to make universal education possible by enabling one teacher to instruct efficiently many pupils in one class; (4) to afford pupils the opportunity of forming right habits; (5) to secure the prompt despatch of the business of the school.

A school is well organized and well managed when it is ready to do effective work, when the conditions for study and recitation are made as favorable as possible for every pupil, when the interest and hearty co-operation of the school board, the parents, and the taxpayers have been secured, when there is perfect sympathy between teacher and pupils, and when the arrangement of the work of the school tends to promote in the pupils diligent study, self-effort, right ideals, and self-control.

The Teacher's Share in Organizing the School.—A portion of the work included under school organization the teacher usually finds already accomplished. Much of this

preparatory work has been done by the State, the school officers, and the taxpayers. Thus the teacher usually finds ready at hand school buildings, a course of study, a library, apparatus, text-books, rules and regulations. Of course all of these things are of no avail unless the teacher has the skill to combine them and use them to advantage in the daily work of instruction.

The teacher's share in organization includes the classification and grading of pupils, making the programme, arranging signals, determining promotions, looking after the hygienic conditions and the seating, making minor rules and regulations as to regularity, tardiness, hall order, leaving the room, care of books and materials.

Importance of the Teacher's Work as Organizer.—The success of the school depends very greatly upon the wisdom and thoroughness with which the teacher performs his part in the organization of the school. Defective organization results in tremendous educational waste and is one of the most common causes of failure in the management of schools.

Baldwin says: "I have visited more than a thousand country schools and have not found one in twenty well organized. Many of the worst organized schools I have found in the hands of teachers claiming from five to forty years of experience. Most of these proved to be the self-sufficient, all-sufficient, inefficient kind that can learn nothing from others." Organization puts each pupil in his proper place, assigns to each class its proper work, secures to each subject its just share of time, and arranges the entire work of the school so as to maintain quiet and order and encourage right conduct.

Organization Must be Planned.—The great educational value of good school organization is not appreciated by

the average teacher. Many young people begin the work of teaching without knowing what to do to organize a school. They have made no plan for the first day, formed no ideal of the kind of school they want to have. They do not understand the problems involved in organization. They stand before the school embarrassed and awkward. They hesitate and blunder and must often go back to correct mistakes that should not have been made. Their lack of skill and preparation is easily detected by the pupils, who speedily improve the opportunity to make trouble. An evil report goes out over the neighborhood, and it may take weeks to remove the unfavorable impression caused by such a beginning.

Value of Good Organization to the Pupil.—As the conditions of American life have changed, boys and girls do not have the opportunities for systematic work and the formation of regular habits that they formerly did. Then the work of the farm, the small shop, and the home afforded an excellent means of training the young in regular employment. Now, when millions of children are reared in cities, and inventions have so changed the modes of production that machinery does the work that boys and girls used to do in the home, the school must do some things for children that the home formerly did. Above all, the school must afford pupils the opportunity to do regular, systematic work, to form the habits of regularity, punctuality, industry, perseverance, accuracy, and rapidity in work. It must furnish a daily round of employment that calls forth the child's best efforts. The formation of the habit of systematic work is absolutely essential to make a strong and reliable manhood or womanhood. As W. H. Bender well says: "It is the salvation of the youth of our land to have a daily routine of definite duties to

engage their attention with regularly recurring periods of vigorous effort and sensible relaxation." It is simply impossible for a poorly organized school to be efficient in this important work; hence the great value of good organization.

Organization Implies Mechanism.—It seems quite impossible for some advanced educators to distinguish between a system and the abuse of a system. They talk much about the machinery of the schools, the "lock-step" plan of classification, the "evils of examinations," the "military precision," the "mass instruction." They assert that organization and system in the school are imposed upon the child from without, that they are restrictive and repressive, that they do not regard the individuality of pupils, that they destroy originality and initiative, and that there is no such thing as the "average pupil." It would seem that the ideal school of these writers would be a school without classes, grades, recitations, or regulations; in fact, a return to the good old plan of the ungraded school, where "individual instruction" prevailed and every pupil was a law unto himself—a relapse into Rousseau's Utopia of the "Natural" state.

No one denies that organization may be carried too far, that system may be abused, that school machinery may become cumbersome, that "red-tape" methods may prevail, that the machine spirit may permeate instruction and discipline to such an extent that recitations may become a dead formality, and that the school may afford no opportunity for originality and the development of self-control on the part of the pupil. But all these are the abuses of organization and not a necessary outcome of it, and it is neither good sense nor good logic to abolish all organization because of its abuses at the hands of pedagogical drill-masters and machine teachers.

A Self-regulating System.—Much of the daily routine of school work should be purely automatic. It ought not to be left to the fancy or the reason or the inclination of the pupils whether they will study this or that lesson, recite now or at some other time, come to the class or remain at the seat, obey signals or disregard them, come to school when they please and stay out when they choose. Pupils should form the habit of performing all the necessary minor details of the school automatically, in exact time and with the precision of a machine. They should begin to form these habits the very first day of school, and the teacher should see to it that they do so without arguing or dawdling.

"An important device in school management," says White, "is the adoption of a self-regulating system—a system as nearly self-regulating as may be possible." This is especially true in primary grades where very little can be left to the individual judgment of the pupils. Among the details that must be included in this self-regulating system are such movements as (1) prompt obedience to all signals; (2) moving lines up and down stairways; (3) passing to and from recitation seats and black-board; (4) distributing and collecting wraps, books, paper, pens, pencils, and all other materials; (5) the position of pupils when reciting or studying; (6) the sharpening of pencils, care of apparatus, and arrangement of books on the desks.

The Common-sense Factors in Organization.—However perfect the system by which all these minor operations of the school are regulated, there will still be daily and hourly opportunities for the teacher to exercise tact, originality, sound discretion, and common-sense. Schools cannot be organized once for all and then left to run themselves.

Wherever there is life there must be continual change, growth, adaptation, and readjustment. Constant care and accurate judgment on the part of the teacher are necessary to foresee and direct these changes and preserve the school organization. This is the province of school management in its narrower meaning. Besides this, the teacher, as we have seen, must unite in himself the functions of organizer, manager, instructor, trainer, and ruler, and to maintain the proper relation among these requires sure-footed judgment. Again, with the best of pupils, mishaps may occur at any moment that require skill, tact, and forbearance on the part of the teacher. He must be ever alert to discover the needs of individual pupils, to guard against interruptions of the recitation, and to "nip in the bud" every tendency to disorder. He must be wise enough to invent the best plans for conducting the work of the school, and to adapt these plans to the season, to the conditions of the building, to the classes, to the course of study, and to the time of day. He must be self-controlled enough to keep his temper in spite of the most provoking accidents, like the spilling of ink, the tardiness of a pupil, or the breaking of a window-pane.

Qualifications of the Teacher as Organizer.—It is a matter of common observation in educational work that the successful organizer may not be the best instructor. On the other hand, some teachers who are excellent class instructors are poor organizers. It is plain that there are certain special qualities that are essential to make a successful organizer.

(1) *A Good Understanding of Human Nature.*—The good organizer must understand people and know how to meet them on their own plane of thinking. He must be quick to detect the common ground between himself and

them, the points of agreement, and must be tactful in avoiding the ground where disagreement and antagonism may arise. The teacher must deal with all classes in the community, and must learn to respect the motives, opinions, and beliefs of those who differ from him—must learn to be tolerant and patient in dealing with the most bigoted, ignorant, and unreasonable people.

(2) *A Constructive Imagination.*—The good organizer must see clearly what he wants to do, and the kind of school he wishes to have. It is this creative power of seeing the end from the beginning that enables the architect to form an image of the finished structure even before the foundation has been laid, or the general to plan a successful campaign. The man with constructive imagination sees clearly both the end to be attained, and the best means of attaining it. He pictures not only the effects of causes, but causes in the operation of producing effects; not merely the thing desirable, but the thing possible; not alone the "angel in the block of marble," but the strokes of the hammer necessary to set the angel free; not St. Peter's Church completed, but St. Peter's in process of construction. The teacher as organizer must be able to see the ideal school, both as a result to be achieved, and as a series of processes producing such a result. He must see the means to be used, not as abstract principles and educational theories, but as concrete causes and living realities bringing things to pass. He must realize that as soon as this process of creation is checked the life of the school goes out. He must realize that the school should never become a fixed, rigid, finished thing, or a mere machine, but must ever be an organism capable of growth, adaptation, and ever-increasing effectiveness. He will never attempt to substitute "red tape" for common-sense,

nor to organize the school for his own personal ease, benefit, or emolument. He will recognize fully that all the means used in organization must grow out of the nature of the school itself and must be in harmony with the great law of co-operation and with the aims and ideals for which our American schools were founded.

(3) *Confidence in His Ability to Plan Work.*—Ability to plan work for other people to do is another mark of the successful organizer. This confidence must not be the blind egotism of ignorance; it must be a confidence that grows out of a careful study of all the problems in school organization, a confidence inspired by a clear insight into the nature, aims, and work of the school. Without such confidence the teacher as organizer will not trust his own judgment, will not plan wisely nor consistently, will be weak and faltering in action, given to making rules without enforcing them, and bewildering every one by his frequent changes, fickleness, and lack of decision. Such an organizer cannot inspire confidence in the school board, win the co-operation of patrons, or command the respect of pupils.

(4) *Must be Practical and Sensible.*—The good organizer is practical. He does not attempt the impossible. He does not unduly hasten reforms, for he knows that evolution is better than revolution. He does not antagonize his school board or stubbornly contend for trifles. His love of order and system does not betray him into putting undue emphasis on non-essentials or blind him to actual facts. He is reasonable in his demands upon the board, the parents, and the pupils. He does not assume to be infallible nor is he over-sensitive to criticism. He knows enough to keep his own temper when other people lose theirs. He makes allowance for the thoughtlessness of

children and does not regard every offence as a personal matter—a malicious attempt of the pupils to annoy him.

(5) *A Broad Social Outlook.*—A good organizer will see the relation of the school to the other forces and factors of society and will strive in every way to create a helpful school spirit in the community. He will endeavor to allay strife and to secure unity of effort on all educational lines. Such an organizer can make the school a means of uplift and blessing to the entire community—make it the centre and rallying-point of all good influences for the training of the children and the betterment of the social and moral life of the neighborhood.

SUGGESTED READINGS

Tompkins, "School Management," pp. 1–24; Bagley, "Classroom Management," chap. III; Gilbert, "The School and Its Life," chaps. I and II; Perry, "The Management of a City School," chap. X; Hinsdale, "Studies in Education," chap. XIV; "Report of the Committee of Twelve," pp. 55–77; Dutton and Snedden, "Public School Administration," chaps. VII, VIII, IX.

CHAPTER VI

THE AMERICAN COMMON SCHOOL

Democracy and the Common School.—Before the teacher can understand his work as an organizer he must know something of what he is to organize. He must understand why our public schools were founded and appreciate something of their aims, their nature, and their work. He should realize that no cause is more vitally essential to our greatness and progress as a nation than the cause of popular education. He should see in the free school the most characteristic of our American institutions and the most precious heritage of the children of the republic.

Necessity of Free Schools in the United States.—Many years ago a famous French writer declared that the steady progress of the world is toward democracy. Our American Revolution in 1775 was a part of this progress. The result of this revolution was to place supreme political power in the hands of the common people. Then it was fortunate, indeed, that our greatest men fully realized that without universal education the experiment of self-government would be an awful failure. There is no magic in the word "republic" to insure good government; the magic is in the intelligence and integrity of the people. There is no power in declarations of independence to free people from ignorance and vice. There is no safety in paper constitutions; State and national constitutions must be written in the hearts of the people. Santo Domingo and some of the

South American republics are impressive illustrations of these statements.

Views of Washington, Jefferson, and Madison.—In his first annual message to Congress, Washington said: "Knowledge is in every country the surest basis of public happiness." And every American citizen should treasure these words from Washington's Farewell Address: "Promote, as an object of primary importance, institutions for the general diffusion of knowledge. In proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened."

Thomas Jefferson never wrote nobler words than these: "A system of general instruction, which shall reach every description of our citizens, from the richest to the poorest, as it was the earliest, so it shall be the latest of all the public concerns in which I shall permit myself to take an interest." And again: "If a nation expects to be free and ignorant at the same time, it expects what never was and never will be. Where the press is free and every man is able to read, there, and there alone, democracy is safe."

So, too, James Madison declared that "a popular government without popular education is but the prelude of a farce or a tragedy—perhaps both."

The Great Experiment.—Congress and the nation accepted the views of these great men. Magnificent tracts from the public lands were given to the States for founding permanent school funds; State universities and agricultural schools were established and common-school systems were provided. Thus in the early part of the nineteenth century there was begun in this new republic the greatest, the most far-reaching, the most wonderful social experiment in the history of our race—the attempt to educate, at the public expense, all the children of all the people.

Every State in the Union is committed to the cause of free education, and the common school is emphatically the people's institution.

The Struggle for Free Education.—No teacher should be ignorant of the fact that our American common schools are the result of a long and heroic struggle against the theory that a few human beings are born to rule, while the many are born to obey and serve without question. Despots have always feared to educate the masses. No tyrannical government is safe when the people begin to think for themselves. The struggle for the common school has been a conflict not only against tyranny, but against indifference, prejudice, and ignorance. No other class of reformers ever toiled and sacrificed more heroically than educational reformers like Pestalozzi, Horace Mann, Mary Lyon, and Francis Parker.

Our Common Schools a Unique Institution.—No other nation in the world has free schools that are common to all classes of children, rich and poor, high and low. Our common schools are not merely *for* the people, but they are of the people and by the people. Called into being by the spirit of modern democracy, they have become absolutely necessary to the preservation and growth of our free institutions. They are the best friend of the children of the poor. They prevent classes and caste in American society by levelling up instead of levelling down. The socialism of culture and character is the only true socialism. The common schools are the safeguards of freedom and the true nurseries of intelligent patriotism. They are the great means of assimilating our vast foreign population and teaching their children to love the country of their adoption. In them American democracy finds its most complete expression. In them the people of every race and creed and

station in life meet on common ground and clasp hands in a united purpose to give to every child the fullest opportunity to develop to the utmost his individual powers. In every intelligent community the common schools hold a warm place in the hearts of the people, and the taxes necessary to support them are regarded, not as a burden, but as a wise investment.

The School a Complex Affair.—In organizing a school the teacher should understand that there are many factors that enter into the composition of an American public school. The principal factors are the state, the school officers, the taxpayers, the parents, the pupils, and the teacher. All these factors are to be brought into unity, so that each one may do its part in carrying out the aims of the school. To this end the teacher should have a clear view of the part and special purpose of each of these agents in relation to the others. He should know how and why each one is represented in the school.

(1) *The State.*—As soon as the teacher begins to study the problem of school organization in this way he finds the subject of school law a fascinating one. He sees how the state enters into the very life of the school. The most beneficent and humane laws in our State codes are the school laws. These laws provide systems of public schools free to every child of the commonwealth. They provide for the organization of school districts, the election of school officers, the raising of school funds, the building of school-houses, and the training and certification of competent teachers. These laws of the State safeguard the rights of parents, teachers, and pupils; prescribe the duties of school officers; make provision for free libraries and free text-books. Such laws are conceived in the highest spirit of benevolence. They recognize the fundamental

Christian doctrine of the supreme worth of the individual child.

Why the State May do all This.—In addition to the reasons already suggested for state support and control of education, many others might be given. (*a*) Universal education is absolutely impossible without the aid and authority of the state, for the state is the only universal agent of all the people. (*b*) In any free state, education is necessary as a means of protecting life and property. In a famous speech in the English Parliament, Lord Macaulay said: "I believe that it is the right and the duty of the state to provide means of education for the common people. It is the duty of government to protect our persons and property from danger. The gross ignorance of the common people is a principal cause of danger to persons and property. To me it seems quite clear that whoever has the right to hang has a right to educate. Is government simply a great hangman? If it must punish the people, may it not educate them?" (*c*) The state is vitally interested in training good citizens. Every ignorant voter is a menace to democracy. Wherever the ballot does not express the judgment of an intelligent voter, free institutions are in danger, for such voters are the easy prey of the demagogue.

Archbishop Ireland's Address.—In his St. Paul address before the National Educational Association in 1890, Archbishop Ireland said: "As things are, tens of thousands of children will not be instructed if parents remain solely in charge of the duty. The state must come forward as an agent of instruction, else ignorance will prevail. In the absence of state action, I believe universal instruction would never, in any country, have been possible. State action in favor of instruction implies free schools

in which knowledge is conditioned on the asking; in no other manner can we bring instruction within the reach of all children. Free schools! Blest, indeed, is the nation whose vales and hill-sides they adorn, and blest the generation upon whose soul is poured their treasure! No tax is more legitimate than that which is levied for the dispelling of mental darkness, and the building up within a nation's bosom of intelligent manhood and womanhood."

Faith in the Public School.—The first article in the educational creed of every teacher should be faith in our public schools, a steadfast conviction that the common schools supported by the state are essential to the prosperity and happiness of the American people, an unwavering loyalty to the doctrine of the power of education to cheer and bless the lives of the masses. That this is a rational faith is proved by history. It was public education as advocated by Pestalozzi that transformed Switzerland. When Napoleon utterly crushed the military power of Prussia at the battle of Jena, it was a public-school system that raised the conquered nation from the dust. Lord Macaulay asserts that previous to the founding of the free parish schools for Scotland, misery, ignorance, idleness, and lawlessness abounded, vagabonds infested every part of Scotland, and the very name of Scotchman was uttered with contempt. But when the educational bill was passed an improvement such as the world had never seen took place in the moral and intellectual character of the people. The Scotch air was still as cold, the Scotch rocks were still as bare as ever, and all the natural qualities of the Scotchman were still what they had been. But state education changed the common people of Scotland into the most rugged, intelligent, industrious, and thrifty race in all the world.

Our American schools are free and common, but they are not charity schools. They are the one place where the children of all nationalities and sects can come together for work and play, live together, and learn to know each other, learn the duties of citizenship, learn to love the republic and to obey its laws.

(2) *School Officers.*—When we speak of the state as a factor in education, we must not think of the state as an abstraction. The state has come to mean the embodied people, the organized popular will. This popular will expresses itself through legislative enactments, called statutes, or laws. But these laws cannot enforce themselves. The school laws in the various States are made by State Legislatures consisting of only a few men. These men cannot go to all parts of the State to enforce school laws. Besides this, according to our theory of government, we must have one set of men to make the laws and a different set of men to enforce them. Therefore, the legislature provides for the election of school officers to enforce the laws. These school officers are usually a State superintendent, county superintendents, and directors, or trustees, who constitute the local school boards. While the State superintendent has general supervision over the common schools of the State, and the county superintendent exercises general supervision over the schools of the county, the real power and responsibility in educational affairs is in the hands of the local boards.

Each Community Makes Its School System.—With such a plan of organization, it cannot be said that the State really creates a complete school system for any community. Each community makes its own school. It is important that teachers should understand that we have no national system of education in the United States. We can hardly

be said to have even a State system. Our public schools vary greatly, not only as between the different States, but as to the different communities of the same State. The public school in any district will reflect the ideals, intelligence, and spirit of the community. We may find an excellent school in one district and a very inferior one in an adjoining district. The people in each elect their own school officers, and these officers have almost absolute authority in school matters, so far as their own district is concerned.

The Powers of School Boards.—The local school officers have power to vote school funds, except school-house funds, build school-houses, fix sites for school buildings, arrange the boundaries of districts, select teachers and fix their salaries, make rules and regulations for the government of the schools, provide courses of study, purchase libraries and apparatus, establish graded and high schools, dismiss teachers or pupils for cause, and, in fact, manage all the affairs of the school. To discharge all these important duties well and faithfully requires a high degree of courage, intelligence, and patriotism.

Democracy versus Monarchy in School Organization.—Some people, apparently, can never understand why we should not introduce into the United States a centralized school organization patterned after some Old-World system. They would have some central authority, vested in a minister of education, educational commission or board, direct and control all the work of the schools in every community. They point to the ease with which reforms could be accomplished under this plan, and insist that we should have better teachers, higher wages, more uniform standards, better methods of instruction, less waste, and greater correlation between the different parts

of our school system. But they forget that a central system easily becomes a rigid system incapable of change or progress. They do not realize that the very aims and nature of the public schools of the Old World differ materially from those of the United States. Here the public schools are common for all the people; there they are for the common people only. Our schools are the very life and essence of democracy. They are the enemy to caste and class and aristocracy in every form. While we may adopt with profit to ourselves many of the plans and methods of school organization of monarchical countries, we cannot afford to import an entire school system from any monarchy on earth until we are ready to give up our republican institutions.

(3) *The Taxpayers.*—The third important factor in the school is the taxpayer. While some of the revenue for the support of the public schools is derived from permanent school funds created by land grants from the general government to the different States, by far the greater part of the money for the support of the public schools is raised by a State tax or by local taxation. This is in harmony with our American theory of making the people of each community responsible for the kind of school that shall be provided for their children. For the State or the nation to furnish all the funds for the support of the schools of any community would be to encourage indifference on the part of the local taxpayer toward the school and weaken his sense of responsibility. This would be especially true in case the taxpayer had no children in the school.

The Childless Taxpayer.—At first thought it may seem to some that it is unjust to compel the taxpayer with no children of his own to contribute to the education of other people's children. But even in this case the school taxes

should never be viewed in the light of either a public or a private charity. To such a degree does the material prosperity of any community depend upon intelligence that all money wisely spent in education is sure to yield a bountiful return in the production of wealth. Professor Ely says: "It has been ascertained that, with no noteworthy exceptions, the higher in any part of the United States the *per capita* expenditure for schools the higher is the average of wages and the larger, consequently, the production of wealth." Ignorant labor is always costly labor. An ignorant workman is wasteful of material, cannot be trusted with costly machinery, requires constant supervision, and is sure to oppose all improvements in methods of work.

Other Phases of the Question.—Besides this such a workman is easily misled by unscrupulous men and incited to riot, the destruction of property, and even murder. He does not know how to use his leisure time to advantage for enjoyment or self-improvement, and thus readily forms habits of drunkenness, gambling, and violence that render him a danger in any community. His children would be doomed to a life of ignorance, poverty, and vice if the State did not, through the public school and compulsory laws of attendance, extend to them the means of escape from such a condition. Every dollar contributed by the taxpayer to maintain our public schools increases his own wealth, renders his property more secure, decreases the amount of his taxes that would be necessary to support policemen, courts, and jails, and makes the community where he lives a better and a safer one. Intelligent labor has built up the great industries of America, cleared its forests, subdued its prairies, opened its mines, constructed its canals and railroads, and created its opportunities for money-making. And it is a pitiful sight to see a rich taxpayer in the enjoy-

ment of this wealth dishonestly withholding or grudgingly giving his just contribution to the support of our free schools.

(4) *The Parents.*—But if the taxpayers should feel an interest in the public schools of their community, how much deeper ought to be the interest of the parents who intrust to these schools the education of their children! It would seem that where the State and the community provide public schools free to every child, it would be quite unnecessary to urge, or even compel, parents to give their children the advantages of an education. And it is safe to assume that all good parents will be anxious to have their children in school, and will make every necessary sacrifice to secure this end. But not all parents are good or wise. Some are foolish, weak, selfish, shiftless, and even vicious. Many children are left orphans, or worse. These children must not be permitted to grow up in ignorance to become a menace to society. Parents must not be allowed to neglect the education of their children. Physical parenthood is not real parenthood. The mere fact of physical parenthood never gave to any man or woman the right to condemn any child to the slavery of ignorance. Society must see to it that, as far as possible, every child has a fair chance.

Compulsory-attendance Laws.—Compulsory-attendance laws are the logical outcome of State education; for if the State may say to the man with property but no children: "You must be taxed to support free public schools," surely it should say to the man with children but no property: "You must send your children to school." Thirty-two States have passed laws providing for compulsory attendance of pupils, but these laws, as a rule, are not strictly enforced. The total number of pupils enrolled in the

public schools of the United States in 1900 was 15,603,451, but the average daily attendance was only 10,692,091, or 68½ per cent.

"*Parents Don't Visit Our Schools.*"—Teachers often complain because parents do not visit their schools. It is true that parents do not often visit the school in person, but there is a very real sense in which every pupil brings his parents to school with him. Teachers will do well to keep in mind the fact that parents are always present in the school in the traits, temperament, dress, language, habits, and conduct of the pupils. The stupidity of a dull child, it may be, is due to the fact that he is a "chip off the old block," and the physical weakness of many a pupil is the result in concrete form of some parent's foolish habits or secret sins. How are children who have always heard at home such expressions as "It was me," "I seen it," "She ain't," and "He don't" to overcome in a week, or a month, the habits of years? How are children who are rough, rude, and impudent at home to be made gentle, kind, and polite at school? Let teachers take these things to heart, and remember that although the parents are not visibly present in school, yet in the deeper spiritual and psychological sense every pupil brings his parents to school. This is seen in the child's characteristics, habits of speech, postures of body, tones of voice, vocabulary, mental outlook, and moral aspirations.

How Parents Help or Hinder the School.—If the parents of any community are indifferent to the best interests and the proper training of their children, if they elect unfit men as school officers, if they permit petty quarrels and jealousies to interfere with the administration of the school, if they try to run the schools on the cheapest basis, if they encourage tardiness, irregular attendance, and insubordi-

nation in their children, then the schools of the community may be little better than training places in shiftless habits, incompetence, disregard for law, and even positive immorality. But if parents see in their children the "gift of God" or the most "precious jewels" of a Cornelia, they will look to it that the school shall be a fit institution to aid the development of the pupils, and will co-operate with teachers and school officers for this purpose by teaching their children at home habits of cleanliness, obedience, and truthfulness, by sending them to school regularly and on time, by providing them with all necessary books and materials for work, and by cheerfully complying with all necessary regulations of the school authorities.

(5) *Pupils.*—It is for the pupils that the school exists. Whatever reasons of public policy may induce the State to create school systems, whatever considerations of interest or of duty may influence school officers, taxpayers, and parents to make the school facilities of their community the very best possible, there is one class whose welfare is always the supreme object of all these united efforts and whose interest in the school is vital and immediate. All the forces of education find their unity and their meaning in the pupil. For him school-houses are built and teachers are supplied. What is done for his proper instruction and training is the true measure of the worth of the social system into which he is born. While it is true that he has no share in shaping the general policy of education, no vote in determining the kind of school he shall attend, no voice in the selection of his teachers, and must take what is provided for him, yet in the school itself his work and spirit and conduct become potent factors in the success of the entire organization.

(6) *The Teacher.*—We thus find that the American public school is a very complex institution. The State, school officers, taxpayers, parents, pupils, and teacher are all necessary factors in the school, but the real teaching process is not possible until pupils and teachers are brought into vital contact with each other. All the other factors contribute to this result, have this for their purpose. The teacher's function in the school is so important that "as is the teacher, so is the school," is a very common saying. In a negative sense this statement is true, for an incompetent or immoral teacher may defeat the whole purpose for which the school exists. Such a teacher may bring to naught the effort of the State to train worthy and useful citizens, defeat the plans of school officers to provide the proper training for the children of the community, waste the money of the taxpayers, render futile the sacrifices of parents to keep their children in school, and convert well-disposed pupils into idlers and law-breakers. No one can measure the evil effects of the influence of a bad teacher or compute the loss to the community when ignorance and stupidity are intrusted with the instruction of its children.

We shall attempt to show, however, in the next chapter that the proverb "as is the teacher, so is the school," is not true in the positive sense. The other classes represented in the school cannot thus shirk their responsibility. School officers, taxpayers, parents, and pupils all have a work to do, and if they neglect their duties no teacher can entirely make good all deficiencies. This will appear more clearly when we consider the nature and aims of the school. From what has been said, it will be apparent that the fundamental law underlying all school organization is the law of co-operation. How to secure the willing and

hearty co-operation of all the classes that make up the school is the great problem of organization. Ability to do this is the true test of the teacher's power as an organizer.

SUGGESTED READINGS

Dutton, "School Management," chap. XVI; Raymont, "The Principles of Education," chap. IV; Page, "Theory and Practice of Teaching," chap. XII; Parker, "Talks on Pedagogics," chap. XVI; Sogard, "Public School Relationships," pp. 1–34 and 60–83; Dutton and Snedden, "Public School Administration," chaps. IV, V, VI; Gilbert, "The School and Its Life," chap. XXII; Gordy, "A Broader Elementary Education," chap. III; Hinsdale, "Studies in Education," chap. XV.

CHAPTER VII

NATURE OF THE SCHOOL

I. **The School as an Organism.**—It has been said that the school can exist with a Mark Hopkins on one end of a log and a Garfield on the other. Such a statement is a confusion of terms. It assumes that the teaching process is all there is to a school. It ignores the fact that the school is an institution formed by the union of many classes, or elements. To say that the teacher and the pupils alone constitute the school is to say that a part is equal to the whole. It is to single out instruction, or teaching, as the one and only function of the school. But without proper organization, instruction is wellnigh impossible. It often happens that the teacher's most difficult and perplexing problems are outside of the school-house. The school is not a mere process, nor is it solely a mechanical or material thing. It does not cease to exist in vacation, nor is it destroyed when school-houses burn or crumble into ruins. Pupils and teachers come and go; taxpayers die; patrons move away; school officers are constantly changing; yet the school survives. The real school is a spiritual thing. It is a fundamental principle embodied in an institution. This fundamental principle is co-operation of all the forces of the community for the systematic training of children.

Co-operation the Life of the School.—Co-operation is the life of the school. The real school is the union of all

the classes composing it for the purpose of educating the child. The very best school that any community can have is found where the State, the school officers, the taxpayers, the parents, the pupils, and the teacher all work together harmoniously and effectively to accomplish the aims for which the school exists. On the other hand, the worst school that any community can have is found where there is the least co-operation among these classes. Between these two extremes there are all grades of schools, good and bad.

The great problem of school organization is to secure the efficient, hearty co-operation of all the classes represented in the school. That teacher is the best organizer who secures this intelligent co-operation and uses it wisely for the improvement of the pupil. What life is to the plant or the animal, co-operation is to the school. In this sense the school is an organism. The classes represented in the school are the organs of which it is composed. Each organ has its own work to perform, and all work together for the good of the whole.

Paul's Illustration.—The illustration that Paul uses in I Cor., chap. 12, is just as appropriate when applied to a school as to a church: "For the school is one body and hath many members. And the teacher cannot say to the parents, 'I have no need of you'; nor again to the school officers, 'I have no need of you.' Nor can the school officers say to the taxpayers, 'We have no need of you.' And whether one member suffer, all the members suffer with it; or one member is honored, all the members rejoice with it." A poor school is the result of a lack of helpful co-operation among the several members, or organs, of the school, just as a diseased body is the result of some one or more organs failing to do the work for

which they are designed. The daily work of the most efficient teacher is crippled wherever there is a failure on the part of school officers to provide a good school-house, comfortable seats, proper heating, good ventilation, and decent out-buildings. No teacher, however faithful and capable, can entirely overcome the injury to the school caused by quarrels among patrons and by the indifference and carelessness of parents who take no pains to have their children regular in attendance and obedient to the rules of the school. In this sense it is not true that "as is the teacher, so is the school."

The Teacher's Work as Organizer.—We have spoken of the school as an organism, like the human body. Now just as there is in the body one organ whose special function is to bring into co-operative relation all the other organs of the body, so in the school there must be one member whose duty it is to bring all the other members of the school into unity of purpose and action. In the body this organ is the brain; in the school this member is the teacher. The teacher as an organizer must unite, inspire, and direct all the educational forces of the community. While he must always conform to public sentiment in school matters, he must, in fact, shape and re-form that sentiment. While he must obey strictly and in good faith the school officers from whom he derives his legal authority, he must, as a matter of fact, suggest and carry out the policy to be pursued in educational progress. While he must secure the good-will of his pupils and plan all his work for their good, he must, nevertheless, shape their ideals, direct their work, and set up their standards of scholarship and conduct. Thus it will be seen that while the school has many organs, or members, and that all of them are necessary to the work of the school as a whole,

the teacher is in reality the great unifying, vitalizing, and directing power.

Some Members of the School are Out of Sight.—Just as very much of the work of the different organs of the body is entirely absent from our consciousness, so also very much of the work of the school is not in the thoughts of the teacher and the pupils in the school-room. The more remote parts of the system drop out of sight in the actual life of the school. The State, the taxpayers, the directors, the superintendent, the patron, are lost sight of, and the conscious process of education is confined to teachers and pupils. It is for the very purpose of producing this conscious relation and contact between teacher and pupils and making it effective that all the other parts of the school organism exist. This vital, face-to-face contact and spiritual union of pupils and teacher in their daily work is the great life principle of the school as an organism.

II. **The School as an Industrial Organization.**—But lest some matter-of-fact people fail to grasp this conception of the school as a social organism, let us consider the nature of the school from another stand-point. There is a sense in which every good school is an industrial organization. Here again the great law of co-operation is the fundamental fact. Every industrial organization, great or small, represents combination of effort, a partnership between labor and capital. There must be a manager to plan and direct the work. Every laborer has his specific task, yet the work of all tends to the accomplishment of the same end. In order that a workman may hold his job, he must abide by certain rules. He must be regularly at his post of duty, must be punctual, must do his work neatly and be saving of material, must be accurate, industrious, and obedient.

Now, as Mr. White has pointed out, these virtues that are the basis of all industrial pursuits are exactly the same virtues which every good school must demand of its pupils. The organization and work of the school require combination of effort, regularity, punctuality, accuracy, industry, and obedience, and thus the school becomes a training place for acquiring just those habits that make men and women successful in their industrial life.

Value of the School in Forming Industrial Habits.—It must not be forgotten that the great majority of the pupils in our public schools are to join the great army of the world's industrial workers. No matter what their chosen work may be, their success will depend fully as much upon the habits which they have formed in school as it will upon the knowledge they have gained. If in the school pupils have formed the habits of diligent, persistent application to the task in hand, of prompt and implicit compliance with necessary rules and regulations, of resisting temptations to dally and shirk, of cheerfully working with others to accomplish certain results, they will go out into industrial life with every prospect of success. Under modern conditions children do not acquire these habits in the ordinary home, hence the great importance of this phase of school training is apparent. Miss Charlotte M. Mason, in "Home Education," says: "How great the value of school discipline is to girls, they can appreciate who have had experience of the vagueness, inaccuracy, want of application, desultoriness, want of conscience about work, dawdling habits of young women brought up at home under the care of governesses. Of course there are exceptions, but for habits of work, power of work, conscientious endeavor in her work, the faithful school-girl is, as a rule, far before the girl who has not undergone school disci-

pline." There can be no doubt that the habits which are formed by doing the regular daily tasks of a good school become a very important factor in the industrial efficiency and success of the pupils.

III. **The School as a Social Community.**—In discussing the nature of the school, there is still another fact that is worthy of our consideration. No matter what pupils may do or where they may live after they leave the school, they will be members of some social community. Every teacher should understand that the school ought to be a most efficient means in training pupils for this social citizenship. School life is the connecting link between the home and the community. In fact, every school is a little social community in itself. No school can be a good one in which the pupils are not trained to be polite and courteous to each other and to their teachers, to be honest and truthful, to be just and kind, to be helpful and sympathetic. And no pupil who acquires these social habits can be a bad neighbor.

Social Training in the School.—It is not meant that the teacher is to teach these habits in set lessons. What is meant is that the very nature of the school affords daily and hourly practice in these fundamental social virtues. If the school is properly organized and conducted it becomes a powerful influence in forming the social ideals and habits of the pupils. Pupils are closely associated in all their work. Under the eye of a cultured, refined teacher the social standards of the school are, at least, as high as the best standards of the community. Lower standards are crowded out. Rudeness, vulgarity, injustice, dishonesty, lying, and meanness are repressed. Pupils must meet as equals, must learn to treat each other with consideration, to criticise classmates in a kindly spirit, to

respect the rights of others, to subject their individual preferences to the general welfare, and to cultivate the spirit of helpfulness and sympathy. This is effective training in the social virtues.

IV. **The School as an Institution.**—The school is so commonly referred to as "an institution" that it is worth our while to understand clearly the real meaning of this term. To most people an institution means some material thing or some external form. The idea back of this external form is seldom thought of; yet in reality this idea is the very essence of an institution. The external form is only the material means through which the idea manifests itself.

An institution, then, is a system of laws, or regulations, containing within itself a vital principle by which it accomplishes certain results, perpetuates itself, and promotes its own development. The object of an institution is to originate and direct a series of acts to accomplish a continuous result. Institutions are to society what habits are to individuals. They substitute intelligent, regular, and continuous action for spasmodic, irregular, and uncertain action. At the very core of every important institution there is some great idea or principle, so that an institution is a principle embodied in some tangible form.

An Illustration.—The Christian Church is an institution. Its external form is seen in churches and cathedrals, in music and altars, in prayers and sermons and sacraments. But back of all these is the great idea of man's relation to God. Generations of men come and go, centuries pass, yet the Church as an institution lives on, perpetuates itself, and promotes its own development.

Application to the School.—The school, too, is an institution. It is the embodiment of a great principle, a great

idea. This idea is the development of each individual child into a useful member of society through a process of continuous, systematic instruction outside of the home. This idea of the development of the child is not to be understood as a matter that concerns the child alone. Rousseau was mistaken when he assumed that the individual child is to be educated simply for his own sake. The claims of society upon the school cannot be ignored in this fashion. The child is to become a member of society, a social unit, and it is as absurd to talk of educating a child wholly by himself and for himself as it is to think of developing a bee or an ant apart from the hive or the hill. Thus every influence that society can command stands pledged to the success and welfare of the public school as an institution. The external forms of this institution are school funds, school-houses, classes, recitations, black-boards, books, and courses of study. All of these external things are constantly changing, but the school as an institution remains, and will remain as long as the great idea of developing the child through systematic, continuous instruction shall live. Therefore, from every point of view we see that co-operation is the great principle, the vital law, underlying all school organization and school work. This is true of the school as an organism, as an industrial organization, as a social community, and as an institution.

School Organization.—No adequate conception of the nature of school organization can exist in the mind of the teacher who fails to keep in mind this great law of co-operation. How to unite and correlate all the social, political, family, moral, and religious forces of the community for the purpose of promoting the development of the pupil into an intelligent, useful, moral member of society—this is the central thought in school organization.

Everything that interferes with this co-operation is a hindrance to the child's development and tends to defeat the very purpose of society in maintaining public schools. The purpose of school organization is to make the relation between teacher and pupils in the school-room as effective as possible in carrying out the aims of the school. This leads us naturally to a brief statement of these aims.

SUGGESTED READINGS

White, "School Management," pp. 114–129; I Cor., chap. XII; Tompkins, "School Management," 196–218; Seeley, "Elementary Pedagogy," chap. XII; Dutton, "School Management," chap. XVII.

CHAPTER VIII

AIMS OF THE SCHOOL

General Aims of the School.—The general aims of the school have been summarized in definitions of education. These definitions may be classified under three heads: (1) Those which emphasize the capacity of the child to receive training; (2) those that put the emphasis upon the office and function of the teacher; (3) those that put the stress on preparing the child to become a member of society. It will be a very helpful exercise to the student to classify under these three heads some of the famous definitions of education.

Memorable Definitions of Education.—(1) "The purpose of education is to give to the body and to the soul all the beauty and all the perfection of which they are capable."—*Plato.*

(2) "Education is the process by which one mind forms another mind, and one heart, another heart."—*Jules Simon.*

(3) "Education is preparation to live completely."—*Herbert Spencer.*

(4) "Education is the full and harmonious development of all the powers of the child."—*Pestalozzi.*

(5) "A complete and generous education fits a man to perform justly, skilfully, and magnanimously all the offices, both public and private, of peace and war."—*John Milton.*

(6) "Education seeks, by social stimulus, guidance, and control, to develop the natural powers of the child, so as to render him able and disposed to lead a healthy, happy, and morally worthy life."—*Sully.*

(7) "Education is the preparation of the individual for reciprocal union with society; the preparation of the individual so that he can help his fellow-men and in return receive and appropriate their help."—*W. T. Harris.*

(8) "A complete education ought to preserve the pupil's bodily health and strength, and give him command over his mental and muscular powers, increase his quickness and sharpness of perception, form in him the habit of prompt and accurate judgment, lead to delicacy and depth in every right feeling, and make him inflexible in his conscientious and steadfast devotion to all his duties."—*Hill.*

Why These Definitions are of Value to Teachers.—It cannot be too strongly emphasized that all effective school work implies a definite aim on the part of the teacher. The general aim of school education as set forth in these definitions is quite a different thing from the specific aim of some particular school exercise or lesson. But the specific aim of every lesson or exercise in the school derives its whole meaning and value from the fact that it is in harmony with the general aim of education, and that the lesson or exercise contributes something to the realization of this general aim. As in building the Brooklyn Bridge, one general plan, or aim, controlled and shaped the entire process of construction, while a thousand minor specific aims had to shape and direct all the various processes and details of construction, all the daily work of every laborer by which the final result was achieved, so must the great general aim of education control and shape all the work

of the school. Thus the general aim of education is the standard of value by which we should measure the worth of school systems, courses of study, and each particular subject in the course. By this standard the teacher is to measure the value of every method, every device, every school appliance, every rule and exercise and lesson.

Education as a Preparation for Complete Living.—If we adopt Herbert Spencer's definition of education, let us see how all the work of the school and all the plans of the teacher are dominated by this definition. And, first, we must be sure that we understand the definition. "How to live," says Spencer, "that is the essential question for us. Not how to live in the mere material sense, but in the widest sense. The general problem which comprehends every special problem is—the right ruling of conduct in all directions, under all circumstances. In what way to treat the body; in what way to treat the mind; in what way to manage our affairs; in what way to bring up a family; in what way to behave as a citizen; in what way to utilize all those sources of happiness which nature supplies—how to use all our faculties to the greatest advantage of ourselves and others—how to live completely. And this, being the great thing needful for us to learn, is, by consequence, the great thing which education has to teach. To prepare us for complete living is the function which education has to discharge." Spencer then proceeds to classify, in the order of their importance, the leading activities which constitute human life: (1) Those activities which directly minister to self-preservation; (2) Those activities which, by securing the necessaries of life, indirectly minister to self-preservation; (3) Those activities which have for their end the rearing and discipline of offspring; (4) Those activities which are involved in the

maintenance of proper social and political relations; (5) Those miscellaneous activities which make up the leisure part of life, devoted to the gratification of the tastes and feelings.

Now, if preparation for complete living is set up as the general aim of education, it is clear that all school studies, lessons, methods, and exercises must be measured by this standard. "The test of the ultimate aim," says Bagley, "must be applied at every point; otherwise the work of the school will lack system and harmony, and adequate results will be secured only through the operation of the law of chance." How and to what degree will this branch of study, this recitation, this opening exercise contribute toward one or more of the five objects included in complete living are questions that must always be uppermost in the teacher's planning. That is, all the minor and specific aims of the school, the subject, the aim and plan of every lesson, must be dominated by this general aim.

In attempting to define these more specific aims of the school, most writers adopt a threefold classification, hence we have the terms physical, intellectual, and moral education.

I. **Aims of Physical Education.**—Some one has said that the first requisite to success in life is "to be a good animal." "A sound mind in a sound body" is a famous old maxim which Locke declared is the short but complete definition of happiness in this world. Yet until quite recently physical education has received little attention in our public schools. Not only so, but school-houses were built without any provision for decent ventilation or proper lighting and heating.

During the last few years, however, there has been a marked change for the better. School authorities and

teachers have become keenly alive to the importance of physical education. Fatigue, defects of vision and hearing, poor ventilation, and uncomfortable seats are recognized as serious limitations to mental effort. The teacher must reach the child's mind through his senses and nervous system, and no one can be an intelligent teacher who is ignorant of the child's bodily development and physical needs. The health and strength of pupils are important in education both as ends and as means. As one writer has said: "Since vigorous health and its accompanying high spirits are larger elements of happiness than any other things whatever, the teaching how to maintain them is a teaching that yields in importance to no other whatever."

"Basic to every other consideration," says Mr. Search, "good health must be recognized as the essential condition and the fundamental aim of all education. The value, therefore, of every contributing factor—the school building, the teacher, the studies, the programme of exercises, and the methods of instruction—is determined by the degree in which it promotes health of body, mind, and soul. Good health calls for pure air, purifying sunshine, good companionship, correction of past weaknesses, adequate illumination, proper nutrition, regular habits, correct postures, suitable studies, good tools, healthful mental stimuli, and normal procedure in work."

One of the most helpful educational signs of the times is the recognition of the fact that it is the function of the school to preserve and improve the physical powers of the pupil. To train the child's senses to keenness, his hand to skill, and his whole body to health and strength, to remedy existing defects and prevent new ones, to make all the work of the school a means of helping

pupils to become more skilful, more graceful, more beautiful—these are the aims of physical education.

The Teacher's Duty.—It is not expected that in our public schools the teachers will give very much time to formal exercises in physical culture or attempt to make athletes of their pupils; but surely every teacher ought to be able to detect physically defective children in the schools, to know when school-houses are properly ventilated, warmed, and lighted, to understand when the seats are of the right shape and size for the pupil, and to exercise due care that children shall not injure themselves by maintaining unhealthful postures. The teacher is both incompetent and wicked who permits pupils to acquire stooping shoulders, hollow chests, defects of vision, colds, catarrh, and contagious diseases, if it is in his power to prevent it.

II. **Aims of Intellectual Education.**—Knowledge, mental discipline, and skill in applying what one knows are the three aims of intellectual education. These aims are not to be separated in practice. All operate at the same time in directing the teacher's choice of subjects, lesson-plans, method, and devices. Some writers have made altogether too much of form studies *versus* content studies. We cannot thus classify studies as wholes, nor assume that all of one study is valuable only as knowledge, while all of some other study is valuable only as a means of mental discipline, and still another as a medium of acquiring skill. The multiplication table, for instance, is valuable as knowledge, as a means of mental discipline, and as an exercise for the persistent drill which is always necessary to the acquisition of skill.

"Knowledge Studies" versus "Discipline Studies."—Spencer goes so far as to claim that, "having found what studies are most valuable for knowledge, we have

found by implication what studies are best for mental discipline, and that the acquirement of those classes of facts which are most useful for regulating conduct involves a mental exercise best fitted for strengthening the faculties." And while we may not accept this conclusion as true in every case, still, in the main, it is a safer one to follow than the hard-and-fast division of subjects into "knowledge studies" and "discipline studies"; for, as every one knows, no knowledge whatever can be acquired without *some* mental activity, and the *how* we study a subject may be as important as *what* we study.

The Survival of the Unfittest.—In educational practice it is often the unfit that survives. Great harm is done pupils to-day because teachers have a narrow or a wrong conception of what knowledge really is, and an entire misconception of how knowledge is gained. Knowledge is not a mere mass of unrelated and undigested facts learned for the purpose of reciting or passing an examination and forgotten as soon as the artificial need of knowing is past. And to suppose that all knowledge must be gained from books and that committing to memory the words of a lesson is really acquiring knowledge are still greater mistakes.

These Views a Legacy from the "Revival of Learning." —It is hard for us to realize that only a few generations ago the great mass of people could neither read nor write. Books were rare and costly. About the time that Columbus found a New World, the so-called "Revival of Learning" occurred. The printing-press was just coming into use. Modern literature had not been created. Science was in its infancy. About the only books to be printed were the Latin and Greek classics. The aim of education set up by the leading teachers of that day was the ability to read these classics in the original. Courses of study con-

tained very little else than Latin and Greek. Boys spent ten to fifteen years in mastering bulky Latin grammars and lexicons. They were forbidden to use their mother tongue except on holidays. The learner of books was considered the ideal scholar. Little attention was given to substance or thought, and great stress was placed upon words. So it soon came to pass that teachers assumed words in themselves to possess some magic power by which knowledge can be imparted. The training of the pupil's senses and observing powers was utterly neglected. Memorizing rules and exceptions, declensions and conjugations became the sole work of the pupils, and "hearing recitations" the sole business of the teacher. School discipline was harsh and brutal, for such a course of study was wholly devoid of interest, and boys had to be forced to their daily lessons by severe punishments or bribed with prizes. From these wrong ideals and wretched practices of the old schools we are gradually escaping. But all such reforms come slowly, and wherever we find a teacher assigning so many pages from a book to be learned paragraph by paragraph and recited by the pupils, while the teacher keeps the book open to see that "they recite it right," we may reasonably conclude that we have found a case of the survival of the unfit.

The Knowledge that is Power.—Not all knowledge is power. Knowledge does not consist of the mere facts that one accumulates. Many facts are useless, trivial; a knowledge of other facts is positively injurious. The knowledge that is power consists of important facts bound together by logical relations, well classified, and so thoroughly mastered that they can be used by us as a means of acquiring further knowledge, or as a means of guiding us in the discharge of life's daily duties and

activities, or as a means of increasing our own happiness and that of others. Such knowledge can be acquired only through the mind's own self-activity. The teacher cannot transfer it or impart it or pour it into the pupil's consciousness, but he can, if he is a master of his art, so inspire and direct the pupil's thinking, feeling, and willing that growth in knowledge, power, and skill is the sure result of his instruction.

Mental Power the Abiding Result of Education.—It has been said that probably nine-tenths of the information acquired in school is forgotten. Such a statement naturally suggests the conclusion that if the knowledge itself was all that pupils have to show for their time and energy used in acquiring it, then nine-tenths of that time and energy are wasted. But if in acquiring this knowledge pupils have gained something else fully as valuable as the knowledge itself, then it is clear that their time and energy are not wasted. If they acquired this knowledge in such a way as to train their perceptive powers, develop their imagination, sharpen their judgment, ennoble their feelings, strengthen their will, form in them habits of attention, perseverance, and faithful effort, then, although the greater part of the knowledge has vanished away, still they can show "value received" for all their time and energy. Mr. White says: "Whatever knowledge is taught a child should be so taught that the act of acquiring it shall be of greater worth than the knowledge acquired." In other words, children should learn their lessons, but learn them in such a way and under such inspiration and direction as to develop all the powers of the mind. This means that the power to think one's way quickly and accurately through new problems, to express one's thoughts clearly and forcibly, and to apply general principles to the ever-

changing needs of daily life are the really important and abiding results of education.

Skill in Applying Knowledge.—Not least in importance as an end of intellectual education is skill in applying knowledge. And this application is to be made, not at some distant future time in the pupil's life, but day by day as the pupil acquires the knowledge. Skill always implies practice and drill under correct guidance. It involves training and the formation of habits. It means accuracy, rapidity, and facility in action. It is the final test of the worth of both knowledge and discipline; for in its larger meaning it not only requires a clear apprehension of definitions, laws, rules, and principles, but also demands that these laws and principles shall be constantly and correctly applied to particular cases. In fact, this power of instantly applying our knowledge of general principles to particular cases, facts, relations, or conditions that may confront us—applying the right principle with instinctive tact, without hesitation, almost unconsciously—is what we mean by "common-sense" or "good judgment." This is the final goal of all instruction.

A Serious Fallacy.—It must not be supposed that in daily practice the teacher should always attempt to keep these three aims of intellectual education separate from each other nor that they must be realized in consecutive order. While one or another may be most prominent in some particular lesson, in most lessons there is need to keep all three aims in view. It would be easy to show that even the first lesson in primary reading should involve knowledge-getting, mental discipline, and skill in applying the knowledge previously acquired by the child. And where the lesson or exercise takes the form of a review or a drill, the work should seldom consist of mere repetitions,

but should present a new phase of the subject or provide for practice inspired by distinct and definite ends and guided by clear ideas.

III. **Aims of Moral Education.**—The great purpose of moral education is to secure right conduct in all the relations of life, in the home, in the school, in the state, in business, in society. To secure such conduct implies, first of all, intelligent judgment of right and wrong, and second an ever-present and ever-potent disposition to choose the right and reject the wrong.

Character the Supreme Aim of Education.—All great thinkers on education agree that character is the supreme aim of all instruction. Locke, who placed great stress upon physical education, puts the aims of education in the following order as to their importance: (1) Virtue; (2) Wisdom; (3) Manners; (4) Learning, thus making learning, or book knowledge, the least important of the four.

Pestalozzi declared that the child who had learned to pray, to think, and to work is already more than half educated, and asserted that his object was not so much to teach the child to know what he did not know before as to teach him to behave as he did not behave before.

Froebel, in his "Education of Man," says that "the object of education is the realization of a faithful, pure, inviolate, and hence holy life." And from Herbart we read that "the one and the whole work of education may be summed up in the concept *Morality*."

The Moral Mission of the School.—If these great thinkers are correct in their views, then the teacher should never forget that character is above learning, that good moral habits are more important than memory gems, that to require pupils to act justly and to practise righteousness is better than preaching, that it is safer and easier and nobler

to form character than to reform it. Under a wise and good teacher all the lessons, all the exercises, all the government and influences of the school become powerful instrumentalities in the formation of right habits in the pupils, the culture of the moral judgment, the quickening of the feelings and the conscience, the training of the will in right-doing, and the upbuilding of noble character.

The Three H's in Education.—We have now pointed out the aims of education in each of its three great divisions, the culture and training of the hand and the body, the head, and the heart. With these broad aims of education all the work of the school should be in harmony.

The Partners of the School.—Of course we do not assume that the school can do all the work of educating the child. There are other powerful influences that have a part in educating him. The material and social environment of the pupil outside of the school, his home, the street life, the Sunday-school—all these are at work as partners with the school in shaping the life and character of the child. All of these together may fail to make of the pupil a useful member of society and a good man or woman. Many of the influences surrounding the child out of school are evil, but no honest teacher will make this fact an excuse for neglecting to work toward the highest aims of education.

The Teacher's Opportunity and Privilege.—It should not be forgotten that the school is the one institution devised by society for the consistent, continuous, and conscious training of the young. The other influences in the child's education work incidentally and at intervals, but the school and the teacher work directly and continuously. The teacher and the pupils in the school are set apart, dedicated, as it were, to the work of teaching and learning. As Arnold Tompkins said: "The teacher is the one and

only member of society whose sole business it is, by set plan and purpose, to develop the whole life of another." Not only so, but the child during the school year is with the teacher in the school, including intermissions and time spent on the way to the school or from the school to his home, more of his waking hours each day than he is at home. School work, school companions, school thoughts dominate his life. The teacher in the school can do for the children of any community many things that parents have not done for them in the home and some things that parents cannot do. He can help the pupil to know himself, to get a larger vision of life, to "covet earnestly the best gifts," to aspire to the things that are true, honest, just, pure, lovely, and of good report. These are the ultimate aims of the school.

SUGGESTED READINGS

Compayre, "Lectures on Pedagogy," chap. I; "Psychology Applied to Education," chap. I; White, "School Management," pp. 9–16 and 218–224; Gordy, "A Broader Elementary Education," chaps. IV–VIII; Seeley, "The Foundations of Education," chap. XXII; Bagley, "The Educative Process," chap. III; Search, "An Ideal School," chap. XII; Hadley, "The Education of the American Citizen," pp. 150–160; Horne, "The Psychological Principles of Education," chap. III; "Educational Foundations," vol. XVI, pp. 263–266.

CHAPTER IX

THE COURSE OF STUDY

How Related to the Aims of the School.—In the preceding chapter we discussed the aims of the school. In order that these aims may be attained the every-day work of the pupils must be wisely planned and carefully directed. Gilbert says: "To allow each teacher to teach what he pleases to the children would quickly produce disorganization alike fatal to the teacher's success and disastrous to the children." The aims of the school cannot be secured unless the materials used in instruction are wisely selected, carefully arranged and graded, and properly correlated. Subjects of study so selected, arranged, and correlated constitute the curriculum. Thus the course of study is the most natural and concrete expression of the aims of the school. It serves the teacher both as chart and log-book. It makes possible the steady, unbroken progress of the pupil in his efforts to realize the aims of the school.

Importance of the Elementary Course of Study.—Until very recently there has been no general recognition by the American people of the vast importance of the elementary course of study. Even among educators the problems of secondary and higher education have been considered the paramount ones. But ever since Francis Parker began his famous "experiment" at Quincy, the interest of both people and teachers in the course of study for elementary schools has constantly grown more pronounced and more

intelligent. Everywhere our courses of study for the elementary schools are being modified by the weeding out of purely formal exercises, like parsing, the spelling of long lists of unrelated words, arithmetical oddities, and mechanical map questions in geography, and by introducing in their place interesting and useful knowledge of all kinds: art in the form of music, drawing, and painting; literature and history in the form of stories, myths, legends, and biographies; science under the name of nature study, elements of botany, physics, zoology, geology, and physiology; and on the side of expression we have handwork, physical training, and all that may be included under the terms manual training, crafts, and domestic science. As a result of all these radical changes our elementary courses are in a chaotic condition. But we have at last fully realized the importance of the problem and no one can doubt its final successful solution. Some of the reasons for its importance are: (1) The elementary schools must provide for all classes of children regardless of their possible vocations in the future; (2) it is in the elementary school that the pupil must build the foundation for successful work in the high school and college, both as to knowledge acquired and habits of study formed; (3) the first eight years of a pupil's school life are almost certain to determine his attitude toward intellectual pursuits, for it is here that he either acquires a many-sided and permanent interest in knowledge for its own sake or forms a dislike for all study; (4) lastly, the great majority of pupils will never enter the high school, so that the elementary school must supply them with all the school instruction they will ever have.

The Teacher and the Curriculum.—It is of vital importance to the success of the school that the teacher should

understand the nature, aims, and value of the course of study and should make a wise and conscientious use of it in his daily work. Although the law gives to school boards the right to prescribe the course of study, it is, as a matter of fact, nearly always compiled by the principal or superintendent and is merely adopted by the school board. But no matter how the course of study has been provided, nor how perfect it may be, it will be of little practical value unless it is intelligently used. It is only a thing on paper; the teacher must make it effective, must put life and purpose into it, must master the art of applying it to the daily needs of the pupils, and this is a much more difficult thing to do than to put a course on paper.

Some teachers calmly ignore the course of study and work in a blind, aimless, hap-hazard way, giving no thought whatever to the reasons why certain studies are selected for the course, to the proper sequence of topics, or to the correlation of subjects. They are the blind leaders of the blind. Other teachers who really appreciate the value of the course of study as a means of attaining the aims of the school apparently get lost in the details of organization and instruction and soon lose sight of the greater problems involved in the education of the child. The work of such teachers will invariably become mechanical and without inspiration. Many teachers put their time and energy on the subjects that they like best or are most proficient in and notoriously neglect other subjects equally important. Still other teachers are satisfied to read only that portion of the course of study that outlines their own particular work. Now it ought to be perfectly clear that teachers in the fifth grade cannot teach the subjects and topics included in the work of that grade intelligently unless they know what the pupils have learned in the preceding grades

and also keep in mind what will be required of these pupils in the work beyond the fifth grade. In other words, every teacher should be familiar with the course as a whole, should know the connection and relation of its parts, understand its aims and the principles underlying its construction.

How to Use the Course of Study.—It is not intended that the course of study shall fetter the teacher's freedom and individuality. It should not propose a rigid system to be strictly and literally applied by the teacher. A course of study must be general in its provisions and must leave very much room for the exercise of judgment, tact, and common-sense on the part of the teacher. Of course this implies that the teacher will try to master the provisions of the course of study.

After carefully studying the curriculum as a whole, in order to get a general view of the work of the school, the teacher should study each subject separately in order to obtain a good understanding of it from beginning to end. Only in this way can the sequence of topics be fully grasped. Then the outline of the special subject or year's work in which the teacher must give instruction should be thoroughly mastered and the work for each term or month should be carefully planned. This will enable the teacher to correlate the work in the different branches and assign lessons intelligently. The work of each year and each branch of the course has its general aims, but the teacher in planning and assigning lessons must have specific and definite aims or the pupils are all "at sea" in their study and preparation. Every lesson, if taught effectively, must be taught with reference to the lessons that have preceded it as well as to those that are to follow it. A proper use of the course of study will enable teachers to do this and will

render the work of the school more definite and symmetrical and the progress of pupils more satisfactory. Every good teacher will make a constant use of the course of study in the preparation of her daily lessons. In making such preparation a plan-book is a great help. Magee says: "A plan-book offers, when well done, a method of preparation of the lessons, a means of giving to the grades and of dovetailing the subjects to one another, that would scarcely be accomplished as well by other means. Experience shows that young teachers meet with their chief difficulty in instruction and consequent difficulty in discipline from lack of systematic and progressive outline and plan work. To such a teacher a daily plan-book prepared with some detail is a great help; such a book may be examined by the principal daily, or at frequent intervals, and suggestions and directions may be made therein by him." Superintendents and principals must insist that teachers make a wise use of the course of study, but they should always bear in mind that the curriculum is made for the teacher and the school and not the teacher for the curriculum. It ought not to be necessary to hamper competent teachers with a lot of weekly or daily petty restrictions and minute directions.

While the course of study in our public schools should be determined as to its essential features by the authority of the State, a great degree of freedom should be left to the local community and local school officers to supplement the course by adding studies of local interest and adapting it to meet the specific needs of the pupils. And, in like manner, while the local principal or superintendent must exercise a wise general supervision of the practical work of administering the course, he should leave the details and minor adjustments to be worked out by the individual

teachers. Only in this way can the course of study be both flexible and progressive and individual initiative be combined helpfully with central authority.

A course of study should be a constant challenge to the teacher to study and self-improvement. It is easy to master the work of one grade and to repeat the round of instruction year after year, but the effects of such teaching upon the teacher are pitiful in the extreme. Following thus the line of least resistance, the teacher becomes inert, unprogressive, narrow, unstudious, and intellectually atrophied. The course of study should make students of the teachers who use it.

The Aims of the Course of Study.—The great purpose of the course of study is to bring into unity and effective co-operation the whole school life of each pupil with the larger life of mankind as expressed in the great world of human knowledge and achievement. It is an attempt to correlate subject-matter with the unfolding life of the learner.

This is the great problem that Pestalozzi endeavored to work out. With infinite zeal and patience and love he sought to discover the order in which the child's powers develop or unfold. Then he tried to reduce all knowledge to its simplest forms and to arrange the subject-matter of the curriculum in its natural sequence so that the child might find in the course of study material exactly fitted to his needs at every step of his ever-growing and ripening powers.

More concretely stated, the aims of the course of study are these:

(1) To provide material for instruction so wisely selected and so carefully arranged as to be suited to the developing needs and capacities of the pupil and thus enable him to

derive from the school the knowledge, power, and skill that are essential as a preparation for the work of life.

(2) To secure order and continuity in school work and thus reduce to the minimum the loss of money, time, and effort caused by aimless work and the frequent change of teachers and superintendents.

(3) To furnish pupils and teachers a definite standard of progress which shall serve as a basis for the classification of pupils.

(4) To unify the work of all the schools of a district or community and thus make effective supervision possible.

(5) To enlist the interest of parents and secure their co-operation by making them acquainted with what the schools are striving to accomplish.

Relation of the Course of Study to the Community and to Civilization.—From every point of view it is apparent that the fundamental aim of the course of instruction is to make the great law of co-operation more vital, constant, and effective in the education of the child. In a preceding chapter I have shown how this law brings into unity all the classes represented in the school and all the forces of the community to accomplish the aims for which the school exists. We now see that the law of co-operation includes not only the State, the school officers, the tax-payers, the parents, the teacher, and the pupil, plus all the social, industrial, and moral forces of the community, but that through the course of study it reaches out far beyond them and includes all the knowledge and achievements of mankind, all the science, the literature, the art, the ideals of the race, all the forces of the civilization into which the child is born.

It is no mere figure of speech to say that the child is the "heir of all the ages," but it is through the school that he

comes into possession of his heritage. In the dome of the Congressional Library at Washington are the statues of Homer and Shakespeare representing poetry; Michael Angelo and Beethoven standing for art; Herodotus and Gibbon for history; Solon and Blackstone for law; Newton and Joseph Henry for science; Plato and Bacon for philosophy; Columbus and Robert Fulton for commerce; Moses and Paul for religion. Thus in one great object-lesson we are taught that our civilization is the combined product of the genius, the toil, and the sacrifices of the great and good men of all countries and all ages. And as the pupils in our public schools, through the course of study made vital by a capable, inspiring teacher, come into contact with these master-spirits of our race, new desires and ambitions are born in them, larger visions of life and duty and service fill their minds, and love of the good, the true, and the beautiful takes possession of their hearts. This is the heritage that every community maintaining a good public school freely offers to its children.

Raymont aptly says: "A curriculum is the outward expression of the ideas and aspirations of a community, not of an individual; and the community has a right to lay down the broad lines which instruction shall follow in the schools, with due deference to the opinion of the professional element as to what constitutes suitable mental food for children."

The Nature of the Course of Study.—The course of study is not then, as some writers seem to think, an invention of educational philosophers to be ignored, neglected, revised, or used by teachers at their convenience. It is not a thing to be tinkered with by every budding principal or superintendent who can persuade a school board to adopt the product of his genius. It is not a waste-basket into which

every crank or fanatic may dump his hobby or his ism. It is not even "the measuring-rod or scale to determine at what point in the elementary course a pupil's work has arrived," as defined by the Committee of Twelve. On the contrary, it is the point of vital contact between the child's mind and the intellectual and spiritual forces that have made our civilization. To the learner it is the means by which he grows into the mental and moral type of his race, and thus becomes an integral part of our twentieth-century civilization. The child who does not in some way grow into unity, co-operation, and sympathy with the ideals and aspirations of our present civilization remains a barbarian or becomes a confirmed hoodlum, degenerate, or criminal. "Summing it all up," says Dr. Charles McMurry, in discussing the elementary course, "it is not too much to say that the school has begun to bring the whole range of human life and activity in select typical forms under its purview. This comprehends broadly the whole history of mankind in its typical and striking manifestations, the whole run of nature, animate and inanimate, and its relation to man, and all those great institutions, occupations, and traditional bodies of knowledge which man has accumulated in the course of the centuries."

To the competent teacher the curriculum is the means by which it becomes possible to realize the aims of the school, to put a correct estimate upon educational values, and to place emphasis upon the things of greatest importance. Such teachers are not easily made the victims of fads and irrational ideals, for they have the vision to see that wisdom is more precious than knowledge and to realize that the poorest investment that the State can make is to educate a rascal or a shirk. That the course of study is of vital importance in attaining the aims of

education is my contention, and the soundness of this position will become more evident if we consider the principles that govern the construction of the curriculum.

Making a Course of Study.—From what has been said, it is clear that to construct a good course of study is a very difficult piece of work. No educational question has caused more earnest and prolonged discussion. Sometimes this discussion has been exceedingly bitter, and the most one-sided and extravagant views have not lacked for defenders.

There are three great problems involved in making a course of study: (1) The selection of studies; (2) the order, or sequence, of topics and studies; (3) the correlation of subjects. The matter is further complicated by the fact that each of these three problems must be considered from two stand-points: (1) The objective side, or the nature of the subject-matter; (2) the subjective side, or the nature of the child. To quote Arnold Tompkins: "The subject-matter is the basis of the course; the growing pupil is the modifying factor. The first gives the lines which thread the course through from beginning to end; the second gives the stages of forward movement on those lines. The first is the warp, the second is the woof of the course. Objective existence, or subject-matter, determines the one; the subjective order of the pupil's unfolding determines the other."

I. **The Selection of Material for the Elementary Course.**—That such a selection must be made is, of course, apparent when we consider how vast is the field of human knowledge and how short is the school life of the average pupil. There are various theories as to how this selection should be made, and different standards have been set up by which to determine the relative value of studies.

Most educational writers agree that the true standard of value by which to determine the relative worth of studies is morality—the building up of moral character—but there is no such general agreement in the method of applying this standard to the practical problem of the selection of studies for the curriculum.

(1) *The Theory of Formal Discipline.*—The conception of education that ruled the schoolmen of the Middle Ages and that was afterward adopted by the classical school gave rise to what is known as the theory of formal discipline. Dr. De Garmo says: "The theory of formal discipline assumes that the mind can store up disciplinary force in a few subjects, like grammar and mathematics, which can be used with efficiency in any department of life." The defenders of the old classical course of study have always insisted that even though the knowledge gained by the study of Latin and Greek is of little practical value, still the mental discipline gained is of sufficient importance to justify their place in the curriculum. The Committee of Ten apparently adopted this theory of formal discipline as their standard of value in the selection of studies for secondary schools, for they assert that all subjects are to be considered equivalent in educational rank for the purpose of admission to college, and they assume that the materials of instruction are a matter of indifference, since education consists in training the mental powers.

(2) *The Theory of the Utility of Knowledge.*—Herbert Spencer's famous plea for the study of science as the only form of knowledge that has intrinsic value has profoundly influenced our courses of study. This theory is summed up in the two popular phrases "practical education" and "preparation for complete living." Spencer declared that for all the practical purposes of life science is the all-

important and needful study, and disposed of the theory of formal discipline in the words: "We may be sure that the acquirement of those classes of facts which are most useful for regulating conduct involves a mental exercise best fitted for strengthening the faculties."

(3) *The Theory of Socializing the Individual.*—This, in the main, is the criterion adopted by the Committee of Fifteen for measuring the value of the different studies in the elementary course. "The chief consideration to which all others are to be subordinated is this requirement of the civilization into which the child is born, as determining not only what he shall study in school, but what habits and customs he shall be taught in the family before the school age arrives, as well as that he shall acquire a skilled acquaintance with some one of a definite series of trades, professions, or vocations in the years that follow school; and, furthermore, that this question of the relation of the pupil to his civilization determines what political duties he shall assume and what religious faith or spiritual aspirations shall be adopted for the conduct of his life." Mr. W. T. Harris maintains that no philosophy of education is fundamental until it is based on sociology, and that the evolution of civilization is the key to education in all its phases, but he does not explain how there can be social progress without individual progress.

(4) *The Theory of Interest.*—This theory, to quote the statement of Dr. Rein, is: "Only that should be subject-matter of instruction which is able to awaken and claim the interest of the pupils. Only such material should be chosen as must necessarily awaken a spontaneous, permanent interest in every child of normal mental endowments. The interest only has a real value for education when it arises spontaneously in the pupil, accompanies him through

his school life as a permanent mental activity, and still inspires him after his school years as a vital power that will always augment." The material selected must have a close affinity with ideas already possessed by the child, must not be above his power of comprehension, must introduce him into the national life of his own people, and must present large, entire, connected portions of the subjects. Such portions are called types.

Basis of Truth in Each of These Theories.—Teachers who have no "ism" to defend will see that there is something of real value in each of these theories and will be heartily glad that no one of them has succeeded in gaining a complete mastery over the others. All of these theories should influence the selection of the materials for our elementary course of study; but no one of them should dominate the course as a whole. Our courses of study are the result of a compromise and a general averaging of all these standards, and it is well that they are so. They are all the better for it. It is true that each of these theories has been advocated by great educational thinkers, such as Rein, Harris, Spencer, and Herbart, but it is also true that many of their extreme statements have been uttered in the heat of controversy while defending their particular views from the criticisms of other thinkers equally great and sincere. Out of the clash of argument certain general conclusions concerning the nature of studies and their relative value appear to be fairly well established.

Definition of the Term "A Study."—(1) On its objective side a study is (*a*) any isolated branch of knowledge; (*b*) any special field of knowledge sufficiently organized for purposes of instruction; (*c*) a certain amount of fact matter to be learned and a series of exercises to be done as a means to an end; (*d*) a somewhat arbitrary division

of the field of knowledge to which a certain portion of the pupil's time is given; (*e*) a body of facts concerning some particular topic bound together by certain fundamental principles of relation.

(2) On its subjective side a study is (*a*) any line of employment designed to furnish the person who pursues it with some definite store of knowledge, particular kind of skill, or special form of culture; (*b*) a mode or form of living individual experience; (*c*) a channel, or groove, along which the pupil's thoughts may be directed during a definite period for a definite end; (*d*) every subject which calls out the thoughtful, interested attention of a pupil when placed before him.

The Relative Value of Studies.—The relative value of a study, as defined above, is (1) its power to arouse the interest and self-activity of the pupil and make this interest his permanent possession; (2) its utility, or value as knowledge, that is, "power to give the pupil an insight into the world and command over its resources"; (3) its relation to other studies and its importance as a preparation for future investigation in other fields; (4) such adaptation to the previous experiences, the maturity, and the environment of the pupil as makes it possible for him to use this particular knowledge as mental food; (5) its effects in forming right habits and developing moral character.

Groups of Studies in the Elementary Course.—From the above considerations it is obvious that all the great departments of human knowledge should be given a place in the elementary course. The three R's do not make an ideal course of study. In no other one thing is educational progress more apparent than in the wide-spread demand for the enrichment of the elementary courses. There are those who deplore these changes. They raise the cry of

"fads," "theory," "new-fangled notions," and "extravagance." But no amount of eulogy of the good old schools, no fierce criticisms of nature study, music, physical culture, and domestic science in the schools, no cheap ridicule of kindergarten occupations, handwork, and manual training, no plausible demand for "thoroughness in the essentials" will ever succeed in bringing back the old-time ideals of school work and courses of study.

There are six groups of studies that should be represented in every year of the elementary course: (1) Language and Literature; (2) Science; (3) Mathematics; (4) History; (5) Art; (6) Motor Activities.

(1) *Language and Literature.*—Language is studied in the elementary course in the form of reading, spelling, writing, composition, literature, and grammar. It has, as a study, all three of the so-called educational values—utility, discipline, and culture; for it is, first, the means of communication among men and thus makes possible social co-operation, and it is the chief means by which the pupil is to acquire knowledge both in school and in after life; second, through every stage of the learner's progress he must exercise the closest power of observation, sure memory, vivid imagination, keen comparison, and judgment, while with skilful teaching, no other subject appeals more keenly to the child's feelings and attention; third, from the first lessons the work in language should be expended upon material both interesting and valuable in itself. A love for good literature must be fostered. The pupil who leaves the public school without a love for good reading has been poorly taught and has failed to get out of the school the very best thing it has to give him. Of course this result cannot be attained if children are confined to one set of readers for seven or eight years of school life.

The amount of actual reading matter in one set of ordinary school readers does not exceed that in one of Dickens's novels. From the first, reading and literature should go hand in hand.

(2) *Science.*—In the elementary course science should be represented by nature study, elementary science, geography, and physiology. It is the purpose of these studies to bring the pupil into intelligent and sympathetic relation with his environment, to cultivate his power of perception, to open his eyes to see and his heart to feel the beauty of the world about him, to give him a respect for his own body and a knowledge of how to care for it, and to lay a sure foundation for the appreciative study of the natural sciences later in his course.

From the study of geography the pupil should acquire the power to picture vividly the places and countries beyond the reach of his senses and actual experiences, and to realize how closely distant communities are bound to his own community by social, commercial, and political ties. Without a good knowledge of geography no one can read even a daily newspaper intelligently, and can hardly be said to be a member of the world's larger life and civilization. Such a person's thought is circumscribed by the narrow bounds of his own community, and he is easily misled by prejudice, blinded by his local outlook, and is unfit to exercise intelligently his duties as a citizen of the State and the nation. The psychological value of geography consists in affording abundant material for the exercise of perception, imagination, and judgment, while perhaps no other study offers such abundant and interesting materials for the exercise of comparison, judgment, and reasoning from cause to effect. It also affords unlimited opportunity for the expression of ideas through the motor

activities of moulding in sand and clay, drawing, painting, and all forms of handwork. These considerations amply justify the large place that geography holds in the elementary course.

(3) *Mathematics.*—W. T. Harris says: "A knowledge of arithmetic is the first great step in the conquest of nature. It is the first tool of thought that man invents in the work of freeing himself from the thraldom of external forces." The teacher should remember that arithmetic deals with the relations of *quantities* to each other, that these relations are expressed by numbers, and that figures are mere symbols which have been invented to represent numbers. Arithmetic enters into all other subjects in the course, so that there are countless opportunities to teach and apply numbers outside of the recitation in this particular topic. The lessons and pages in the reader are numbered, as are the hours of the day, the days of the week and the month. The value of every article in the school-room, the length of rivers, the height of mountains, and the distance from place to place are all expressed in numbers. The opportunities for teaching the quantity side of arithmetic are equally apparent. As compared with each other, all objects are greater, less, or equal. Children have a natural love for comparing, measuring, estimating, and these operations always require judgment. It is easy to see that a knowledge of arithmetic is an absolutely necessary requisite for the successful study of any of the exact sciences.

(4) *History.*—One of the fundamental errors in our ordinary school courses is that they make no provision for the continuous and systematic study of history in the beginning grades. To postpone the study of history to the sixth or seventh year of the course is little less than

criminal, for less than one half of our boys and girls ever complete the sixth-grade work. History in the form of myths, folk-lore, legends, traditions, stories, and biographies should find a place in all elementary courses during the first four years. History deals with human actions and human motives. It presents virtues and vices in concrete form, and thus presents to the child ideals of conduct. It treats of the relations of individuals, and out of these relations spring moral obligations; thus the study of history affords constant exercise of the moral judgment. Moreover, through the study of history the pupil becomes acquainted with man's larger self as revealed in institutions. It shows the relation of the individual to society. It traces the origin, growth, and progress of the State, points out the relation of the local government to the central authority, describes the national customs, the family life, the industrial and commercial agencies of civilized nations. History thus becomes the most potent means of making the pupil an intelligent citizen, justly proud of the achievements of his countrymen, ambitious to emulate their great deeds, and mindful of his duty to his State and his nation.

(5) *Art.*—Every well-planned course of study now makes room for vocal music, drawing, and color work. These studies afford a means of æsthetic culture and may justly claim a place in the curriculum on this score alone; yet they do much more than this. We have hardly begun to realize the great educational value of drawing. Children naturally delight in the use of pencil and paint brush, and do not hesitate to draw anything from a locomotive to a scene in fairy-land. This tendency, if encouraged, will grow into the habit of ready illustration in all studies. Drawing, painting, and dramatizing are easy and graphic

modes of expressing ideas and form most excellent methods of encouraging accurate percepts, thus affording a basis for clear and definite memory images. Drawing also serves as the foundation for very many of the forms of manual training suitable for the elementary grades.

While singing should be taught for its own sake, it also affords a natural opportunity for teaching good bodily habits, deep breathing, and distinct articulation. On the psychological side, it may be affirmed that as a means of cultivating keenness and accuracy of sight and hearing, arousing right feelings, and concentrating the attention, few other branches are superior to vocal music.

(6) *Motor Activities.*—"Of all subjects calculated to call forth a pupil's own efforts," says Bell, "those which give him something to do have preference over those which merely give him something to say." Physiological psychology has made a most valuable contribution to the science of education in calling attention to the fact that the child's brain cannot be properly developed through sense-impressions alone. It is a perfectly established truth that the cortex, or outer surface of the brain, is divided into sensory areas and motor areas, and that there are two classes of nerves, sensory and motor. Professor James says: "No reception without reaction, no impression without correlative expression—this is the great maxim which the teacher ought never to forget. An impression which simply flows in at the pupil's eyes or ears, and in no way modifies his active life, is an impression gone to waste. It is physiologically incomplete. It leaves no fruits behind it in the way of capacity acquired. Even as mere impression, it fails to produce its proper effect upon the memory; for, to remain fully among the acquisitions of this latter faculty, it must be wrought into the whole cycle of our

operations. Its motor consequences are what clinch it." It is clear that a well-balanced course of study should provide for the proper and proportionate exercise of both sensory and motor nerves and the corresponding areas of the cortex. School work, then, should encourage expression as well as impression. Pupils should be doers as well as learners. Motor activities should form a part of the elementary course at every stage. Under motor activities would be included physical culture, manual training, domestic science, gardening, all forms of handwork and bodily expression. By incorporating these motor activities in the elementary course time is not lost but gained; the danger of fatigue is greatly lessened and the work of the school appeals to boys and girls as really worth while. Of course it is not meant that all these forms of motor activity should be taught as separate branches and at set times. Handwork and manual training, taught for only one or two periods a week, have very little educational value. Wherever there is opportunity for motor expression in connection with language, geography, nature study, arithmetic, or history, there handwork should be encouraged and required. It is continuous training, not spasmodic exercises, that is most effective in the education of the child. The great principle of correlation is especially necessary in dealing with handwork, manual training, and all the other forms of the motor activities.

II. **The Order, or Sequence, of Topics and Studies.**— The sequence of studies means the order in which they should be arranged in the curriculum. It will be readily granted that the studies should be arranged so as to aid most effectively in the education of the average pupil. In making the selection of the materials for the course, we have gone far in solving the problem of the sequence

of topics; for most studies are taught from text-books in which some care has been used in the arrangement of the subject-matter. There are, however, two or three general principles relating to the arrangement of topics and studies that should be perfectly clear to every teacher who attempts to apply a course of study or wishes to use a text-book intelligently. This is especially true, because there is a wide divergence of opinion among educators as to the prevailing practice of to-day in regard to the sequence of studies. Some writers maintain that the true sequence of studies and topics already prevails in educational practice; that this is true of all classes of schools; that our text-books are arranged in accordance with this principle; that our courses of study, in the main, follow the natural order; that our teachers are constantly seeking for approved methods of correlating the different topics and studies in the course. Other writers assert that the true order of studies is almost completely ignored in our schools; that most courses of study are prepared by men who do not know that psychology is an accepted science; that these courses of study are put into practice by teachers whose instruction is mere guesswork; that the true sequence of studies is violated in the arrangement of topics in most text-books. They assert that having ascertained long ago the natural order of the development of the child, we persistently turn our backs upon the course indicated by established facts and follow the path marked out by custom and tradition.

It is no doubt true that the proper sequence of studies is greatly interfered with by custom and tradition, by the over-emphasis of electives, by changeable popular demands, by the use of inferior text-books, and by the ignorance of teachers. The judicious observance of two or

three principles would do much to improve our educational practice in this regard.

(1) *The Psychological Sequence.*—In the lower grades the sequence of topics and studies should be governed by psychological considerations. The order and arrangement of the studies must conform to the nature of the child's mind and the order of its development. The developing mind of the learner should determine not only the sequence of studies but also the method of teaching. This order of development may be stated as (1) the accumulation of the materials of thought; (2) apperception and association; (3) motor expression. Intellect, emotion, and will are all involved in each of these three processes and develop together.

(2) *The Logical Sequence.*—This is the scientific connection and relation of topics and studies to each other. It is the objective factor in determining the arrangement of the subjects in the course. This principle should govern the arrangement of material and the method of instruction in the higher grades. But the transition from the psychological to the logical order should be very gradual. The history of every branch of study and every science proves that the order of their development has been (1) an accumulation of materials through experience with little regard to their logical connection; (2) a period of associating and classifying this material by means of certain fundamental relations and principles; (3) the application of these principles to new cases. Sciences are never made offhand. Neither should they be taught in the lower grades by the deductive method nor in strictly logical order. For if they have developed in the consciousness of the race through psychological sequence, the inference is that they must be developed in the consciousness of the individual child in a similar order.

(3) *The Theory of the "Culture Epochs."*—This theory, as stated by Herbert Spencer, is: "The education of the child must accord both in mode and arrangement with the education of mankind as considered historically; or, in other words, the genesis of knowledge in the individual must follow the same course as the genesis of knowledge in the race." By culture epochs we mean those typical periods in the history of the race which furnish material best fitted for the instruction and training of children through the successive stages of their developing interests and capacities. It is claimed that children pass through certain epochs of moral and intellectual growth and that these epochs repeat in a general way the experiences of the race. Ziller says: "We are to let children pass through the culture development of the race, only with greater speed." In his "Ideal School," P. W. Search says: "That the child repeats the history of the race is undoubtedly true in the normal individual." And he maintains that from this fact we are able to deduce the fundamentals which should enter into a scheme of education. "So, therefore, in a fruitful education the things which are fundamental must take precedence over the things which are purely accessory." Good health, the uplift of personality, contact with nature, love for the beautiful, language, construction, love for stories and myths are some of these fundamentals. Details in penmanship, spelling, technical grammar and science, mechanical drawing, and second-hand information Mr. Search considers as accessories to be subordinated to the fundamental things. Some serious attempts have been made by disciples of Herbart to apply this theory to the succession of subjects in the course as well as to the method of presenting them. Some of these efforts have been fantastic and none of them has been

wholly successful. Yet there is no doubt that this theory has furnished several valuable hints in making a course of study. It has emphasized the oneness of the individual with the race and the tendency of the child to grow into the type of his race. It has emphasized the value of history and literature in the lower grades for their ethical importance in shaping ideals and training character.

III. **The Correlation of Studies.**—The third great problem in making a curriculum is the correlation of subject-matter. In discussing the need of better correlation of subjects, Raymont says: "Total neglect of the affinities of the subjects of instruction undoubtedly increases the embarrassments caused by crowded curricula; it leads to artificiality and takes a false view of knowledge as a mere agglomeration of independent parts, and, to crown all, it leaves room for diversities of aim where the aim is essentially one." Several theories of the correlation of studies have been exploited in America during the past fifteen years. Most of these theories have been borrowed from Germany. They are variously known as correlation, concentration, and co-ordination. The purpose of each of these is to unite all the subject-matter of the course of study into one grand inter-connected, systematic, and progressive plan of instruction.

Concentration.—As generally understood, concentration is the attempt to group all the studies of the course around one central study or subject. Various studies have been proposed as this central one, some choosing literature and history, others nature study and geography, and still others attempting to group all the work of the school around the constructive activities. Most of the attempts to solve the problem of correlation by this method are fairly open to the criticism of being artificial, and at their best are appli-

cable to the primary grades only. As Arnold Tompkins so well says: "True concentration is not the strained and mechanical bringing together of diverse subject-matter into the same recitation but fixing the attention on all the relations of the given subject, and thus drawing into the movement the other subjects required for the mastery of the one under consideration."

Co-ordination.—Most students of education reject the plan of grouping all the studies around one central study. Some of them have favored the plan of selecting two or more important studies as the main ones, or co-ordinate studies, and making the others subordinate to them. Dr. Gordy says: "We may, then, fairly assume that the work upon which the school formerly concentrated its entire attention may be as well or better done incidentally; that instead of keeping—rather trying to keep—the child employed with the wearisome tasks of learning to read, write, and 'reckon' apart from anything he has any interest in, we can teach him these arts quite as rapidly by teaching them in connection with things which it is important for him to learn."

The attempts that have been made to group all the other studies around two or three so-called co-ordinate studies have not met with a very cordial reception, and there seems to be little immediate prospect that this method of unifying studies in the course will be adopted.

Correlation.—By correlation is meant the association and interrelation of subjects in the act of instruction. The purpose of correlation is to prevent the loss of time and energy of the pupil by enabling him to use the knowledge gained in one study to help him in mastering the others. That there is great need of better correlation of studies in our elementary course than now exists is very plain to every

thoughtful observer. The great enrichment of our school courses in recent years has not been governed by any principles of relation; it has been a simple process of addition, but every such addition to the course has made the need of rational correlation more imperative. Our common-school course has become an example of converting a necessary educational agency into an instrument of torture. It has led to overpressure, irritation, too much home study by little children, fatigue and loss of all interest in school work. It has encouraged shallowness and smattering. The only salvation of the child under such conditions is his own power of natural resistance to what his teachers attempt to impose on him and his extreme facility in forgetting the mass of unrelated knowledge that he cannot assimilate. Correlation is not an abstract principle to be applied off-hand in making a course of study. It must become concrete and effective in the act of instruction. The teacher must make it so in her daily work. The laws of association and apperception must be observed. Every opportunity for practical correlation between topics and subjects which will help the pupil to obtain a better grasp of the topic considered must be improved. Geography should help pupils to understand history; drawing and language should help in every other study. Moreover, teachers should miss no occasion to correlate the work of the school with the child's out-of-school life—his games and sports, the books he reads, his home experiences, his excursions and travels, his ever-developing interest in nature and in the social and economic life of his community. This is the only really effective correlation.

Reforms Needed.—The reforms needed in regard to our elementary schools are (1) a better knowledge on the part of teachers as to what constitutes the essentials in education;

(2) the simplification of text-books by the omission of non-essentials, technicalities, and conundrums, and the selection of type forms embodying the important concepts of the subjects for continuous and extended study; (3) closer correlation among the various subjects of the course; (4) greater attention to the physical conditions surrounding the pupils in the school; (5) the introduction of constructive work and manual training into all the grades to be closely correlated with the other studies in the course; (6) such a centralization of authority in school matters as will not leave the essentials of making and administering a course of study in the hands of non-experts and subject to a change of policy with the election of every new school board; (7) the elimination of petty politics in the selection of teachers and superintendents.

Such reforms are already in progress. The process of true reform is that of evolution. The gradual introduction of music, drawing, physical culture, nature study, agriculture, handwork, manual training, domestic science, and the study of literature into our elementary schools during the past few years and the earnest efforts that teachers are making to find the best means of properly correlating this material in their daily instruction are evidence of this process. This work must continue in every department of education, and awakened teachers must be the apostles of a more rational system than the past has known.

SUGGESTED READINGS

Spencer, "Education," chap. I; "Report of the Committee of Fifteen"; Dutton, "School Management," chap. IX; Raymont, "The Principles of Education," chaps. VI–X; Barnett, "Common Sense in Teaching," chaps. IV, V; McMurry, "General Method," chaps. II, IV; "Special Courses in Science, Reading, and History";

Rein, "Outlines of Pedagogics," pp. 93–135; "Report of the Committee of Ten"; Gordy, "A Broader Elementary Education," chaps. XV, XVII, XIX; Baldwin, "School Management," chap. XX; Seeley, "Elementary Pedagogy," chap. V; Roark, "Economy in Education," pp. 171–228; Chamberlain, "Standards in Education," chaps. II, IV.

CHAPTER X

PLANNING THE CAMPAIGN

Preliminary Work of the Teacher.—Every public-school teacher is an employee of the State. The great majority of teachers are educated wholly or in part at the public expense in rural schools, graded schools, normal schools, and State universities. It ought to be assumed that among the motives that prompt them to become teachers is the desire to repay society and the State for the free education that they have received by rendering faithful and efficient service in the school-room. It ought to be assumed that they will cheerfully meet all the legal requirements that are demanded of teachers by the State. It is a part of the preliminary work of the teacher to comply in good faith with these legal requirements.

I. **Meeting the Legal Requirements.**—The State demands that before young men and women begin the work of the public-school teacher they shall attend the normal institute, pass the examinations for certificate, and sign a contract with the school board. The laws of the State also require of the prospective teacher a certain minimum age, aptness to teach, ability to govern, and a good moral character. It is the intent and purpose of these laws to bar the door of every public school-house to immature, incompetent, or immoral persons, if such persons should attempt to undertake the important work of instructing children in the name and under the authority of the State.

(1) *Duties of School Officers.*—It is the duty of school directors and county superintendents to see that these laws are enforced. Applicants for certificates are required to present to the proper school officers such evidences of good moral character as may be demanded. Before any county superintendent or examining board issues a certificate there should be no doubt of the applicant's moral fitness, for the character of the teacher and his influence over his school are of even greater importance than his literary qualifications. Stephens says: "The county superintendent who carelessly licenses a coarse, ignorant person to practise on little children is to be pitied because his crime is so great."

(2) *Teachers Also Responsible.*—But the responsibility does not lie wholly with the county superintendent and the examining boards. Any person who attempts to evade the laws of the State in regard to the requirements demanded of teachers, who attempts to secure a certificate through favor, misrepresentation, or positive cheating and fraud is unfit to be a teacher. The manner and spirit in which young people meet these plain provisions of the law are, therefore, a good test of their real worth and character and have an important bearing upon their success as teachers. Let it be understood in the district that the teacher secured his certificate dishonestly or for the sake of a little higher pay tried to deceive the board as to the grade of the certificate he holds, and the influence for good of such a teacher is at an end.

II. **Securing a School.**—The great majority of teachers begin their work in the rural schools. This is so because there are very many rural schools in which the average daily attendance is less than ten pupils, and sometimes only three or four. In such schools the problems of organ-

ization are very simple, the discipline is comparatively easy, the "individual method" of instruction is followed simply because there are not enough pupils to organize classes, wages are apt to be at the lowest, the educational ideals of the community are usually correspondingly low, and, as a consequence, these schools are likely to fall into the hands of beginners or of incompetents. They are the real, although very pitiful and inadequate, "practice schools" of the country, and how to eliminate them is one of the great educational problems of the day.

The larger country schools afford an excellent opportunity to the well-qualified beginner to acquire power and skill in organization, management, and teaching ability. It is exceedingly important to make a success of one's first term and at the same time to realize that this success is not the result of having an "easy job" but is fairly earned by hard work, good judgment, and faithful performance of duty. It is better not to teach one's first term in his home district.

Applying for a school is a business matter and should be done in a business-like way. No one should apply for a position unless he feels competent to fill it, and no one is ready for promotion until he more than fills the position he holds. Good positions are sometimes won by accident or favor or graft, but ignorance and fraud soon run their course and have their appropriate reward. In the long run, merit, hard work, and honesty win their way to better salaries and larger fields of usefulness.

The young teacher should not place too much dependence upon letters of recommendation. The best recommendations are a simple statement of the grades one has actually earned in school or in examination for a certificate,

a good face, a pleasant manner, a dignified, modest bearing, and a straightforward method.

III. **The Contract.**—It is frequently the case that school boards are negligent about complying with the law in regard to the teacher's contract, but this does not excuse the teacher for a failure to observe the law. Surely, no teacher can afford to be a law-breaker. The teacher's contract should be signed by the president of the board and the teacher, and filed with the secretary before the first day of school. This contract should settle all such details as the length of the term, the time of beginning school, the wages of the teacher, the date of payment, the care of school property, the janitor work, the loss of time caused by legal holidays and in cases of contagious diseases.

Teachers should realize that they are under the strictest business and moral obligations to carry out their part of the contract in every particular. Many teachers secure positions through the recommendations of friends, sign their contracts, and then because, forsooth, they are offered a better position or change their minds, calmly ignore their obligations, break their pledged word, and in effect say to the school board: "What are you going to do about it?" Such teachers are a disgrace to the profession. So common has contract-breaking become among teachers that school boards in many places feel compelled to require all teachers to furnish a bond for the faithful performance of a solemn written promise.

IV. **A Pre-study of the Field.**—We have said that the skilful organizer must have a good constructive imagination, power to foresee consequences and forecast results. This is especially true in preparing for the first day's work. Having met all the legal requirements for the office of the teacher, secured a school, and arranged the contract, the

teacher should plan carefully for the quick and effective organization of the school. The chances of failure are reduced to the minimum by such wise forethought, and success is almost assured. The teacher should plan what to do as well as how and when to do it. Some accurate knowledge of the school is essential to enable one to make such a plan.

(1) *The Public Sentiment.*—The teacher should ascertain before the first day of school something of the public sentiment of the district. He should take an inventory of its educational resources and possibilities. He should plan to utilize the churches, the libraries, and the homes of the community for the improvement of the pupils and the school. He should get into close touch with the school officers, and if possible should visit the school and the neighborhood before planning for his work. Where there is no knowledge of each other, how can there be close sympathy and co-operation between parents and teacher? The surest way to win a parent's heart is to show an intelligent and sympathetic interest in the welfare of his children.

The teacher who has discovered by actual observation something of the people of the district—their nationality, religious views, moral standards, educational sentiment, home life—will be saved from many an error in the organization and management of the school, and will win the good-will, sympathy, and hearty co-operation of parents, where another teacher, ignorant of all these things, would find only indifference or open opposition. The teacher who cannot visit the district in person should secure all the information possible through the school directors, the county superintendent or principal, and the teachers who have taught in the neighborhood.

(2) *Importance of Securing a Good Boarding-place.*—The teacher who would succeed must plan to have a pleasant home. This is not the place in which to practise small economy. Teaching is hard work, and the teacher needs good food, a quiet place to study—a room all to himself—and congenial surroundings. Many teachers fail for no other reason than that they have no quiet resting-place, no opportunity to study, and are constantly irritated by the associations, the lack of conveniences, or the family bickerings in the homes where they board.

(3) *The School-house.*—To plan wisely for the first day's work the teacher must know the arrangement of the school-house. To insure a successful beginning the building should be in good condition, the out-buildings should be clean and free from marks, the necessary furniture in place, and the provisions for seating, heating, and ventilation well understood. The teacher should plan the best method of seating the pupils, provide for the arrangements in regard to wraps, think out the best order for pupils to follow in passing through wardrobe, halls, and stairways, and determine the best means of collecting and distributing copybooks, pencils, pens, and other materials.

(4) *Materials to Work With.*—Many a teacher has been hampered in his first day's work by the lack of crayon, erasers, pencils, paper, text-books, maps, and even such necessary articles of furniture as a chair, a broom, a pail, or a drinking-cup. The black-board is almost indispensable in making the first day's work a success. All apparatus should be put in good condition and should be ready for instant use.

(5) *School Records.*—These records, if properly kept, are a very great aid in planning the work of organization. There should be a course of study and a classification

register in every school. The course of study will indicate the branches to be taught and the number of classes to be organized, while the register will show the names and ages of the pupils, the studies each class has pursued, the text-books used, and a copy of the last term's programme.

Every teacher should leave the school records in complete form and should endeavor by every means in his power to make it easy for his successor to organize the school efficiently and without loss of time. To this end he should leave in the classification register a full and complete statement of the work done during the term, the classes organized, the new classes necessary, the standing of pupils, the programme and what changes in it are advisable, the text-books in use and where each class should begin work, a plan of the seating, and any other information or suggestions that will be helpful to the next teacher. It is the duty of county superintendents and city supervisors to see that the classification register is properly kept.

(6) *The Teacher's Plan.*—Possessing thus the necessary information in regard to the public sentiment of the district, the school-house and its arrangements, the materials to work with, the school records, the text-books in use, and the organization of the previous term, the teacher can plan intelligently for his first day. He should aim to plan definite work for each division and class. This work should be as closely connected as possible with the work of the previous term. He should be especially careful to plan for interesting and spirited work in the reading classes; should expect to make a good use of maps, charts, pictures, and black-board; and should arrange for the definite and careful assignment of lessons. He should prepare the lessons for the first day with unusual care, and

should resolve that every pupil shall have plenty to do. He should determine what signals he will use, what opening exercises will be most appropriate, and what regulations it will be necessary to make.

V. **The First Day.**—The importance of the first day in the term is insisted upon by all writers on school management. Bell says: "Upon no other day of the school year does so much depend. The impressions made the first day, especially the first morning, will be lasting, and will have a powerful influence for good or for bad upon all future work." Questions of vital importance press upon the teacher for prompt and wise action. The pupils come, as a rule, full of interest and expectation and ready to fall in with the plans and suggestions of the teacher, but with keen eyes for signs of weakness, insincerity, and sham. There are many problems that must be solved. There are many questions that must be answered. They cannot be deferred nor evaded. There is no one of whom to ask advice; the teacher must depend upon his own judgment. If the teacher has made earnest, intelligent preparation along the lines already suggested in this chapter this first day will bring joy and strength and victory, but if no such preparation has been made it is sure to bring confusion, defeat, and mortification. The great object of the teacher in this first day's work is to make a favorable impression upon the school, to win the respect and good-will of all the pupils, and through them to gain the confidence of the parents.

A Teacher's Confession.—A member of my class in school management who had been a county superintendent for four years was asked to write out his first day's experience as a teacher. Here is what he wrote:

"Having secured a teacher's certificate and employment

for the spring term in a rural school, I supposed everything was in readiness for the first day's work. Upon reaching the school-house the first morning I found the children waiting to get into the building. I tried to greet them cordially, but I began to feel very nervous. As soon as I unlocked the door there was a wild scramble for the choice of seats.

"The room had not been cleaned, and the floor was literally covered with dirt. Many of the desks were broken and nearly all were loose and shaky. There was an old dirty tin water-pail and a cup without any handle, but no wash-basin. The curtains would not roll up. The black-board was very poor and there were no erasers or crayon. Here I was. The floor must be swept, a temporary programme must be made, and the lessons of the day ascertained and prepared. After selecting their seats the children had gone out to play, and when, at nine o'clock, I rang the bell, in came about twenty boys and girls. I made, or attempted to make, a little speech that I had thought out. It was very disconnected and did not seem to impress the children as I had thought it would.

"After this speech I made some inquiries as to where the last reading lessons had been, and then assigned the morning lessons in this branch. Pretty soon the class in first reader was called. I asked one of the class to read, but he could not pronounce the words, so I called on the 'next' and the 'next,' and so on. Finally the lesson for the next recitation was assigned and the class dismissed. The class in second reader was called, and conducted about as the first class had been. The children all seemed to be watching every move I made, and I was very ill at ease. And now the pupils began to get restless. Hands

were raised and such questions as these asked: 'Where shall we begin in arithmetic?' 'What lesson in history shall we take?'

"I need not describe further the mistakes I made that first day, but will only say that I struggled through the work in a hap-hazard way, and you may be sure I was glad when four o'clock came.

"Some of my mistakes were as follows:

"(1) I should have gone to the school-house before the first day and become familiar with its condition and surroundings.

"(2) I should have asked that the room be thoroughly cleaned and repaired.

"(3) I should have asked that crayon, erasers, and other needed materials be supplied.

"(4) Above all, I should have secured the classification register and ascertained, as nearly as possible, just where each class and each individual pupil should commence work.

"(5) A good temporary programme should have been made.

"(6) I should have become familiar with the names of all pupils likely to attend school.

"(7) I should have reached the school-house very early the first morning.

"(8) It was a mistake to make or attempt to make any extended speech; a very few words would have answered the purpose better.

"(9) Definite lessons should have been assigned as needed.

"(10) I should have been so full of the subjects to be taught and of the spirit of teaching that the first day's impression would have been favorable."

Some Additional Suggestions.—(1) Do not attempt to get the names of the pupils the first thing. Any other time is better.

(2) Omit the opening exercises unless you are sure that you can make them interesting and brief.

(3) Begin as you intend to continue during the term.

(4) Place the assignment of the first lessons on the blackboard before the time for opening the school.

(5) Ask pupils to help you in doing any necessary work, such as sharpening pencils, cleaning erasers, distributing crayon, rearranging the furniture.

(6) Endeavor to carry out your plans just as you have made them. Lose no time, but assign work promptly, see that every pupil has something to do, and begin recitations as soon as possible.

(7) Aim to make the first day's work a full day's work, allowing no puttering, dawdling, or waste of time.

(8) Give very clear and definite directions for all movements and explain the signals to be used, and enforce all your signals and directions rigidly from the first.

(9) Use the intermissions to advantage in preparing board work for the next classes, getting material ready for illustrative work, planning changes in seating, or other necessary arrangements.

Jean Mitchell's First Day.—In that delightful school story, "Jean Mitchell's School," there is a vivid description of her first day. To one who reads between the lines the story of that first day reveals the secret of making a good start and the qualities that make any teacher's first day a success. The "new teacher" was neatly dressed and greeted the pupils with a pleasant "Good-morning." She had a good face and clear eyes, alive to all that took place. She was perfectly self-controlled, quick to resolve, prompt

to act, and perfectly fearless. She had a sweet voice and was a good reader. She could tell a story well and illustrate it by drawing objects on the board rapidly and skilfully. She was a good questioner and put such life and enthusiasm into her work the first day that it was not strange "the school went home in a maze of wonder," at a loss to understand the magic of it all. But the wise teacher knows that the secret of that first day is summed up in the sentence: "Meanwhile in her quiet home at Newton a brown-eyed girl planned by day and dreamed by night of her first school and how she could best make it a success."

SUGGESTED READINGS

Wray, "Jean Mitchell's School," chap. II; Bagley, "Classroom Management," chap. II; Roark, "Economy in Education," pp. 37–44; Seeley, "A New School Management," chaps. III, IV; Landon, "School Management," pp. 109–111; White, "School Management," pp. 94–101.

CHAPTER XI

CLASSIFICATION, GRADING, AND PROMOTION

Meaning.—Thus far we have discussed the larger problems of organization that deal with our school system as a whole. But each individual school must be organized before instruction can be carried on successfully, and every school is in some respects a special problem in its organization. This problem must be solved, as to its details, by the teacher in charge of the school, and, as we have seen, some of the local factors that must be considered in the solution are the public sentiment of the community, the number of pupils, the course of study, the teaching force, the building, and the materials to work with.

However, no teacher should make the mistake of supposing that any school can be organized once for all or that the organization will maintain itself without wise and continuous management and supervision. School management is keeping the school well organized, for there must always be a continual process of readjustment.

We have seen that the course of study is made up of many different branches, each arranged in a progressive order of difficulty. In like manner the school is composed of individual pupils of different ages, capabilities, and degrees of advancement. Now the teacher must adapt his instruction to the needs and advancement of his pupils. If he attempts to make a wholly separate and

distinct problem of each pupil, he will have neither grades nor classes. But if he selects those pupils whose ability and advancement in one particular are so nearly equal that they are able to join with profit in the act of learning the same lesson, then he has organized a class. If the teacher combines several classes into a larger group on the basis of their ability to do about the same work in *all* the studies of the course, he has organized a grade. Departments, or divisions, are two or more grades considered as a whole.

Systems of School Organization.—In Landon's "School Management" four systems of school organization are discussed. These systems are (1) The Individual System; (2) The Monitorial System; (3) The Collective System, including (*a*) the training system and (*b*) the simultaneous or class-room system; (4) Mixed Systems. Each one of these systems has its special advantages and its limitations as well.

In America our smaller country schools are usually pretty fair examples of the individual plan of organization, which generally means no organization at all. With poorly prepared and inexperienced teachers, much of the time of pupils in any school is wasted, work is mechanical, lessons are poorly prepared, there is little preparation or planning on the part of the teacher, and the school is a dull, wearisome affair.

In our larger country and city schools we have adopted the simultaneous or class-room system. Classification is based largely on age and ability; pupils are divided into groups, divisions, or grades; each teacher has charge of a separate room; all the pupils of each class or grade receive the same instruction at the same time, and are promoted to higher grades or divisions when they have

completed a certain definite portion of the course of study.

Overcoming Obstacles in Classifying Rural Schools.—One of the most difficult problems in school organization is the classification and gradation of a large rural school. W. T. Harris says: "No complete remedy has ever been discovered for the evils of the ungraded school." Some of the obstacles to the proper classification and grading of large rural schools are the great number of classes that must be organized, irregular attendance of pupils, diversity of text-books, lack of proper records of the preceding terms, no well-defined course of study, and the opposition of parents. Overcoming these obstacles is a question of school management, and success will depend upon the tact, patience, and good sense of the teacher. Somehow, the teacher must secure regular attendance. The school board must be appealed to in order to bring about uniformity of text-books. In the absence of proper records and course of study, the skill and training of the teacher should be such as to enable him to determine fairly accurately the ability and needs of each individual pupil and to work out the proper classification of the school as an original problem. The opposition of parents must be removed by personal visits and explanations that will convince them that the teacher is earnestly and sincerely striving for the best interests of the school as a whole. It ought to be clear to all concerned that without proper classification, efficient instruction is not possible.

Outline of the Course of Study for Rural Schools.—In the "Hand-Book for Iowa Schools," which the author had the privilege of revising for the State Department in 1900, and again in 1906, the course of study for elementary schools is outlined as follows:

OUTLINE OF THE COURSE OF STUDY

PRIMARY DIVISION	First Primary (First Reader)	FIRST YEAR Reading and Language, Spelling, Writing, Handwork and Drawing, Music, Numbers.
	Second Primary (Second Reader)	SECOND YEAR Reading and Language, Spelling, Writing, Handwork and Drawing, Music, Numbers.
FIRST INTERMEDIATE DIVISION (Third Reader)	Third Year	Reading, Spelling, Writing and Drawing, Language and Literature, Nature Study and General Lessons, Music, Arithmetic.
	Fourth Year	Reading, Spelling, Writing and Drawing, Language and Literature, Geography and Nature Study, Music, Arithmetic.
SECOND INTERMEDIATE DIVISION (Fourth Reader)	Fifth Year	Reading, Spelling, Writing and Drawing, Language and Literature, Geography and Nature Study, Music, Arithmetic.
	Sixth Year	Reading, Spelling, Writing and Drawing, Language and Literature, Geography, Music, Arithmetic.
ADVANCED DIVISION (Fifth Reader)	Seventh Year	Reading and Literature, Orthography, Grammar, Geography, Physiology, Arithmetic, History.
	Eighth Year	Reading and Literature, Grammar, Geography, Physiology, Arithmetic, History (five months), Civil Government (three months).

Suggestions for Classifying Pupils.—Where all the eight years' work must be done by one teacher, and where pupils are of all ages from five to twenty-one, the organization and arrangement of classes must be given very careful thought or the number of classes will be so great that good, thorough work is impossible. The pupils should be arranged in four divisions—primary, first intermediate, second intermediate, and advanced. Reading serves as the most convenient basis for classification.

Of course it is not possible for the teacher to organize classes in each study and each year of the entire course. In fact, very few rural schools will have pupils representing all of the eight years. The outline for the course of study provides for five subdivisions, as follows: (1) First Primary; (2) Second Primary; (3) First Intermediate; (4) Second Intermediate; (5) Advanced. In the winter term the First Primary will usually contain only a few pupils, and may not be represented at all, while the advanced division will be large. In the summer months this condition will be reversed. Classes should not be formed for only one or two pupils, unless it would be absolute injustice to put them into classes already organized. Too much dependence must not be placed upon the classification of the preceding teacher, for the gradation of pupils will need constant change and readjustment. On the first day of the term a temporary classification should be made. Within a few days, after carefully considering the case of each pupil, his age, natural ability, and attainments, a term classification should be made, placing each pupil where he can accomplish the best results. Worthy pupils should be promoted when they can do the work of the next higher class. Such promotions should be made an incentive to do good work. While it is desirable that a

pupil shall recite in the same division in all his studies, yet this is not essential.

Some pupils in every rural school are very uneven in their studies, and must be allowed to recite in the class or division where they can derive the greatest good. Such pupils may be allowed to recite in one branch in the Second-Intermediate division, and in some other branches they may recite in the Advanced division; but teachers should try to keep the classification of the school as uniform as possible.

Records.—Teachers should keep a record of the advancement of their classes in the work of the course. In this way officers of the school can easily determine the progress of the pupils, and reports may be made to parents or guardians. A statement should be prepared showing what years have been finished and how much work, by months or terms, has been done in years not completed. This statement, together with a programme of daily recitations, should be left for the benefit of the next teacher. Most rural schools are now provided with classification registers. If properly kept, these registers are a valuable aid to a systematic and intelligent use of the course of study. At the close of the term the classification register and course of study should be returned to the director or secretary of the board. At the beginning of the term the new teacher should secure possession of these records *before* organizing the school.

Gradation of City Schools.—That pupils shall be divided into grades and taught in classes are fundamental principles in the administration of our city schools. Those who criticise this plan of instruction and advocate what they are pleased to call "individual instruction" seem to forget that universal education is not possible under a tutor system

of instruction, and that in any public-school system instruction of pupils in classes is a physical as well as an economic necessity; for only in this way can one teacher instruct successfully thirty or forty children without resorting to some such discarded system as the monitorial plan of Bell and Lancaster.

Advantages of Gradation.—Even if the gradation of public schools were not a physical and economic necessity, the plan has many strong advantages to commend it.

(1) The school is, as we have shown in another chapter, a social organism. Social co-operation, not selfish individualism, is its basic principle. To secure the application of this principle, pupils must co-operate in grades and classes, achieving the same aims by continuous and simultaneous effort.

(2) The association of pupils in grades and classes doing the same work is a powerful and constant stimulus to all of them to do their very best work. Ambition and a friendly spirit of emulation are evoked, and these, in turn, become strong incentives to be regular and prompt in attendance, faithful in preparing lessons, and responsive in recitation, for only in this way can pupils maintain their place in class.

(3) There is sympathy in numbers. Variety, different view-points, opposite personalities come to the surface in class work, and dulness, fatigue, and lack of spirit are banished from the recitation. Just in proportion as the interest of the pupils in their school-work increases will the necessity for harsh and frequent punishments be diminished. The elementary school is no place for electives and specialization. Pupils should not be permitted to study only what they choose to study at the expense of studies which are absolutely necessary to their future

progress in the higher grades. When pupils work together in grades and classes, each study receives its fair and proportionate share of effort, and pupils are encouraged to complete the elementary course as a whole. Thus they are in a position to enter the secondary schools and continue their work with efficiency and satisfaction.

An English writer says: "In order to understand the advantages of classification one needs only to imagine a school conducted on the plan usual in the grammar schools and dame schools of a former generation. The master or mistress remained seated at a desk, and the pupils occupied benches ranged round the walls of the school-room. They wrote copies, worked sums out of books, learned grammatical rules, and so forth; and they were called up individually to have their work examined or to receive help. There was no collective teaching as we know it. Under these circumstances the stimulus of emulation did not act strongly, the teacher's time was badly economized, control was difficult, and harsh punishments were therefore common. Further the instruction tended to resolve itself into a system of memory exercises. The best that can be said for the plan is that the teaching, such as it was, was nicely suited to individual scholars, and that the ablest of them undoubtedly formed those habits of self-reliance which in our modern schools are sometimes conspicuous by their absence."

Dangers of the Graded System.—Notwithstanding all the advantages of grading schools, there are connected with it certain real dangers.

(1) There is danger that school boards will endeavor to curtail expenses by requiring teachers to attempt the instruction of too great a number of pupils. Not uncommonly sixty, or even eighty, pupils have been assigned to

one teacher. It is, of course, perfectly obvious that no teacher can accomplish the best kind of work under such conditions.

(2) Teachers and superintendents are very prone to base the classification of pupils on the power of verbal memory alone. So great a hold on the ordinary mind has the idea that the pupil's mental ability is measured solely by power to learn lessons from a book, that teachers often make absurd work of grading and promoting pupils. I have known girls in geometry classes to simply commit to memory the book demonstrations and receive high grades from their teachers, when they could not solve the simplest original problems nor apply their knowledge of geometry in any practical way. During my first month's work as high-school principal in a certain city, a young lady who was a member of the senior class greatly annoyed me by her poor work in Latin. At the end of the second month I determined to call at her home and inform her parents of her poor work and advise them to have her give up the thought of graduating with the class; but what I saw and heard in the home made me defer my request. Her father was a laboring man whose wife had died about six months before. There were six children in the family, and my high-school pupil was the oldest girl and was doing her best to fill the mother's place. The house was in good order, the children well cared for, and the father told me what a wonderful girl Nellie was, how hard she worked, what a great comfort she was to him, and how anxious she was to graduate with her class. I did not state my errand, but afterward I helped her with her work and tried to smooth the path for her as well as I could. Later in the year I was invited to her home, and the dinner she served would have done credit to a graduate of a school

of domestic science. My estimate of her ability was completely revised. She graduated with her class. The problem of grading and promoting pupils is not one that can be settled solely by the application of abstract principles nor by monthly examinations. The personal equation must always enter into the problem.

(3) Again, there is danger that the differences between the individual pupils composing the class are so great that the rate of progress is too fast for some and too slow for others. The effect on both these classes of pupils is bad. These individual differences may not have existed at first. They may be the result of sickness, irregular attendance, rapid physical growth, outside work, or dissipation. Various devices are used to overcome these difficulties. The slower pupil may be required to drop a study or the faster pupil may be given additional work. Where the interval between classes is not too great, individual transfers to higher or lower classes may solve the problem. If the interval between classes is a year, the grade should be divided, for to promote individual pupils in such a case is nearly always disastrous; and, on the other hand, no pupil should be compelled to go back an entire year in his course to do over again the self-same work in the same way.

(4) From what has been said, it will be clear that there is great danger that the grading of the school will become a rigid, mechanical system, that the individual will be sacrificed, that personal incentive to progress will be checked or destroyed, that promotions will be merely a matter of time rather than of merit and ability. These evils are all the greater when examinations are made the basis of promotions, when teachers use the antiquated method of daily marking, and when the superintendent issues minute instructions as to method and gives exact

orders as to the amount of work each class is to do during the week or month.

Methods of Gradation.—Now, real as are the dangers of the graded system, they by no means justify the conclusions that "the school grade is a fiction," that there is no such thing as the "average pupil," that the so-called "lock-step in the public school" is the sum of all villainies, and that our educational salvation depends upon discarding grades, classes, and recitations and going back to the individual method of instruction, alias the "Pueblo plan." To assert that children are so different that no two or more can be taught in the same class is simply preposterous. Of course no two children are *exactly* alike, and neither are two trees or plants or birds. Yet trees and plants are like each other in the essentials, and so are birds and children. If this were not true there could be no science of botany or zoology or psychology—in fact, no science of anything. The laws of induction, attention, deduction, apperception, and association all testify to the fact that children are alike in the essentials of intellect as they are in the essentials of body. The faults of the graded system are mainly due to ignorant teachers and incompetent or lazy supervision. As we have shown, there is constant need of reclassification and readjustment in the classes and grades of every school. The teachers should see that all the members of the class in any subject are so nearly equal in ability that they can do the work of the class profitably. It is the business of the teacher and the superintendent to discover the pupils who do not fit the class or grade and to provide some remedy that shall be effective. The grading of the schools must be flexible, and several plans, or so-called systems, of securing flexibility have become quite famous.

(1) *The Term or Semester Plan.*—In towns or smaller cities with eight or more teachers below the high school, each of the grades is divided into two or three sections. The sections of any particular grade should not do the same work at the same time. The rate of progress may be different in these sections, but, as nearly as possible, the interval between them is kept the same, so that pupils may be transferred from one section to another at any time during the year. Where the interval between sections or classes is only three or four months, individual promotions are possible, and pupils who are weak can be put back without losing a whole year. It ought not to be necessary to consult the calendar to tell when to promote pupils. Neither is it necessary that all of the pupils in the same room should be doing the same work or even the same year's work. Arbitrary divisions of rooms into first-grade room, second-grade room, and so on, should be avoided. I have known a school to have sixty-five pupils in one room and only twenty in the room above, because, forsooth, the pupils "were not ready for promotion," and the superintendent had not wit enough to discern that a fourth-grade teacher could do third-grade work or that third-grade pupils might possibly study in a fourth-grade room. Such supervision is sheer stupidity.

(2) *Mr. Search's Ideal School.*—The individual method, or the Pueblo plan, has been advocated as a cure-all for the evils of our graded-school system. Starting with the fundamental proposition that "We must reconstruct our educational system," Mr. Search asserts that the central idea of our system of gradation has been that the child must fit the school and not the school must fit the child. He would abolish classes and grades and substitute individual work for class recitations. This is the extreme

of individualism. It ignores the facts that the school is a social unit, that children should learn to co-operate in work as well as in play, that the recitation properly conducted affords the best possible stimulus to individual pupils, and, as Mr. Harris says, enables each pupil to add to his own mind the thoughts and views of all the other members of the class. Every good teacher, of course, should supplement class instruction with individual help, but to do so it is not necessary to return to the methods of the old-time country school.

(3) *Mr. Shearer's Elizabeth Plan.*—The pupils in each room are divided into three or four classes, according to their ability to do the work in the essential branches. By the essential branches Mr. Shearer means such studies as must be pursued in consecutive order, like arithmetic and language. In such studies as drawing, geography, physiology, and penmanship the different groups may recite together. Individual pupils are transferred from one group to another as they may need to advance faster or slower, for the rate of movement in the different groups is not the same. Mr. Shearer claims that this plan entirely overcomes the evils of "lock-step," test examinations, yearly interval, regular promotions, "average pupil" theory, loss of time, and crushing out of incentive and individuality, all so prominent in the usual graded system.

(4) *Mr. Kennedy's Batavia System.*—This plan is a compromise between class instruction and individual instruction. It claims to so harmonize these two methods that the advantages of both are retained and the evils of both eliminated. It seeks to preserve the stimulus derived from class instruction and to provide for the systematic individual instruction of the weaker or slower members of the class. The time of the teacher is about equally

divided between class instruction and individual help. When there are from sixty to seventy pupils in one room, two teachers are provided, one having charge of the class work, the other giving her whole time to individual teaching. The core of the plan is that there shall be definite school periods systematically devoted to individual teaching. Professor Smyser gives the following directions to his teachers to aid them in introducing the Batavia plan.

(*a*) Keep the guiding aim steadily in view.

(*b*) See that assignments of work for the class in the individual period are clear and definite. Assignments of work should always provide for methods of work as well as amount.

(*c*) Use the individual period (1) to give the pupil a grasp of principles, not to aid him in getting his next lesson; (2) to bring into line pupils who have been absent; (3) to teach the pupils how to study the lesson; (4) to encourage timid pupils.

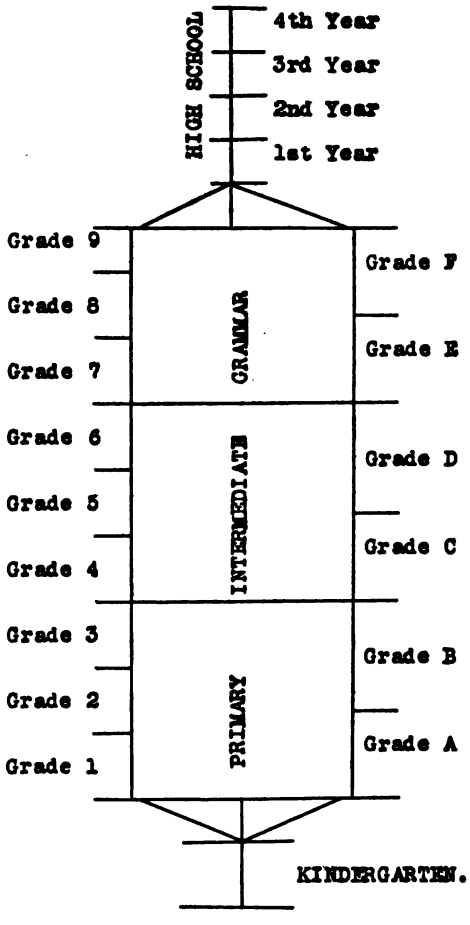
(*d*) Do not hurry in attempting to help too many pupils in one period.

(*e*) Make the plan a means of growth in power and not merely the adoption of a device.

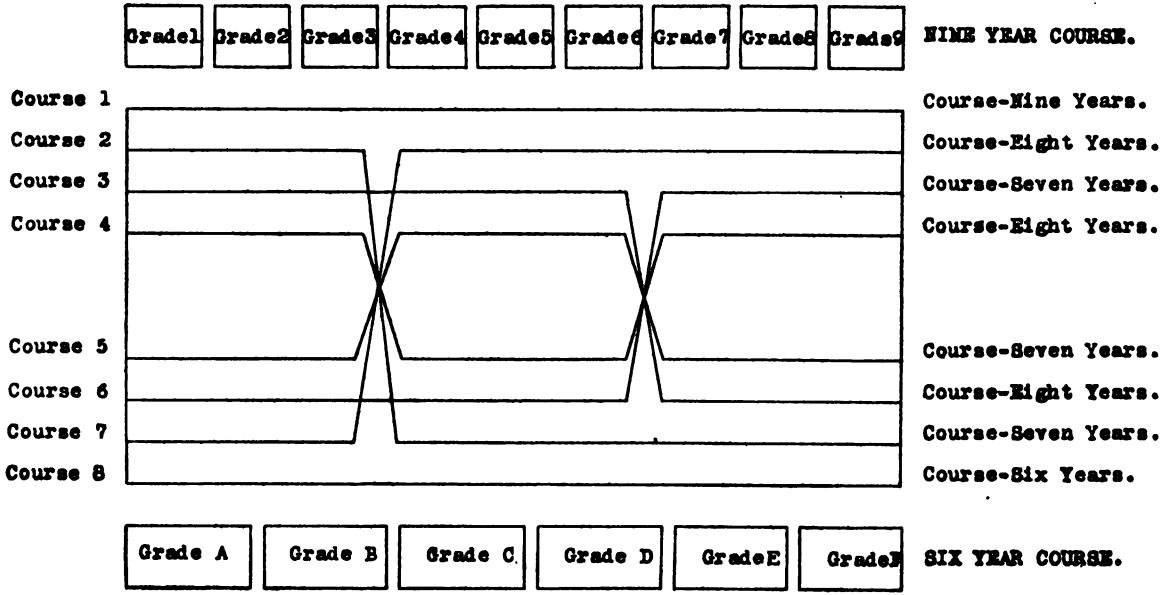
(5) *Mr. T. B. Hutton's Modified Cambridge Plan.*—In 1901 Professor Hutton introduced a two-course system of grading into the schools of Odebolt, Iowa. Later the same system was adopted at Lemars, Iowa. This method which is the Cambridge plan, extended so as to include the primary grades, is fully explained in the course of study of the "Lemars Public School for 1908," from which the following explanations are taken. Two courses of study are made out covering identical work and differing only in the length of time it takes to do any portion of the work. These courses are outlined so as to run parallel

and articulate with one another at different points along the line. Classes may be so graded by means of two courses of study as to come together at different periods, allowing pupils at these points to be transferred from one course to the other without loss of any of the work whatever. And in addition, the intervals between classes are so correspondingly short as to permit transfers practically at any time. The two courses of study are a six-year and a nine-year course. This offers the opportunity whereby the pupil may complete the full course in six years; by three other routes in seven; by three different routes he may take it in eight years; and by one route in nine years. And in none of these cases is he required to repeat any part of the course. The result of the two courses working together will be readily understood by reference to the following diagrams. The nine-year course is represented by the grades indicated by numbers and the six-year course by the grades indicated by letters.

Other Devices for Securing Flexible Grading.—(1) By varying the quantity of work required of different pupils in the same grade. The stronger pupils are assigned more work in the same studies than the weaker ones or are permitted to carry an additional study. (2) By establishing an ungraded room with a strong teacher in charge capable of teaching all the subjects of the entire course of study. Pupils in any grade of the school who are "misfits" in their classes, whether due to sickness, irregularity, entering school late, rapid physical growth, or lack of ability are transferred to this room. The method of instruction is, of course, entirely individual. As soon as a pupil is ready to go on with his class or reaches a point where he can without loss take up his work in some other class or section, he is transferred from the ungraded room



GENERAL PLAN OF GRADES IN ALL DEPARTMENTS.



THE TWO-COURSE SYSTEM OF GRADING.

to a regular grade. (3) By permitting the advanced pupils to coach the members of a lower class who have fallen behind in their work. This is the old monitorial plan of Lancaster and Bell and has little to commend it. (4) By making exceptional cases of very bright or very slow pupils. No attempt is made to hold such pupils to rigid grading. They are permitted to recite in higher or lower grades in special subjects, reciting these lessons to different teachers and passing from room to room, as may be necessary. In this way pupils may specialize in the grades, even omitting subjects for which they seem hopelessly inapt.

Departmental Teaching.—Some educators, notably Dr. W. H. Maxwell, of New York City, advocate the plan of departmental teaching in the elementary grades. This plan of instruction is the one now used in our larger high schools. In a recent work by V. E. Kilpatrick the advantages of extending this plan to the work of the grades are declared to be (1) expert teaching, (2) improved discipline, (3) improved physical conditions, (4) better equipment, (5) enriched curriculum, (6) unity and force in school management. It is also claimed that under departmental teaching the pupils' interest in school work would be greatly intensified; teaching would be more attractive; there would be more men teachers in the grades; the special talent of children would be developed better; pupils would feel a greater sense of responsibility in preparing their work; pupils would be developed as individuals and promoted on merit; favoritism and partiality would be avoided. The objections urged against departmental teaching are: (1) It would result in overworking pupils; (2) correlation of studies would be more difficult; (3) teachers would tend to become narrow; (4) school organization would be more difficult; (5) the personal influence

and responsibility of the teacher would be lessened; (6) discipline would be lax; (7) there would be little independent study by the pupils; (8) harder studies cannot be placed at the most favorable time for all pupils; (9) the family spirit of the school is weakened. From this summary it is obvious that it will require careful experiments under various conditions to settle the many important problems relating to departmental teaching.

The Wiser Course.—From this whole discussion of the problems involved in the classification, gradation, and promotion of pupils, the thoughtful teacher will doubtless form certain definite conclusions.

(1) Our present system of grading is not as hopelessly bad as some zealous reformers would have us believe. In the valuable work on "Public School Administration," by Dutton and Snedden, there is this statement: "The one basis of classification, however, with which the graded system deals is that based either on the stage of intellectual advancement reached as measured in the course of study, or what is nearly allied to that, the ability of the pupil to do the next work presented by the course. The class thus formed contains boys and girls, and pupils who are below the average age for this grade as well as those who may be above it. So long as the group is truly homogeneous by this standard and with reference to the course of study it is probable that teaching can be carried on most effectively. The teacher gives directions to forty or more children (or a lesser number if two classes or divisions of the grade at different stages of advancement are formed in the same room), all of whom have the same kind and amount of knowledge and skill back of them and all of whom have the same need of learning the things just before them. The difficulties of one will be largely the difficulties of all.

The same lesson can be assigned to all and the same explanations given with least waste of effort. Duplication of work is avoided, and month by month the pupils proceed abreast in their educational march." This is a fair and reasonable statement of what our graded system really is, and under ordinary conditions this plan ought to produce good results without seriously interfering with the normal development of the individual pupil.

(2) Most of the evils connected with the grading and promotion of pupils are caused by poor teaching or incompetent supervision, and the adoption of any other method than the one in general use would not make the teaching any better nor render the supervision any more efficient.

(3) There are many successful devices for securing flexibility of grading and insuring greater freedom to individual pupils. But teachers and superintendents should remember that these devices are for exceptional pupils only; that no rational system should be based on abnormal or exceptional cases; and, above all, that to make these devices a means of self-advertising and an excuse for wholesale condemnation of our public-school system is both foolish and unprofessional. Dr. Shaw says: "The newer conception of what should constitute a course of study must not be sacrificed or violated in any new scheme for the irregular promotion of pupils. It is not a difficult matter to move pupils on through the grades at irregular intervals, when the acquirement of so much book knowledge, in a formal way, is all that is required. The problem becomes a much more serious one when constant provision is made for the thought side of education as above the formal side."

(4) In reform evolution is better than revolution. Sudden and wholesale changes in school administration are

usually unwise and harmful. With a more rational course of study, better trained teachers, more expert supervision, and greater stability in the teacher's tenure of office, we may reasonably hope that the evils connected with gradation and promotion will be eliminated.

SUGGESTED READINGS

Landon, "School Management," pp. 117–165 and 199–210; "The Hand-Book for Iowa Teachers," Edition 1906; Shearer, "The Grading of Schools"; Tompkins, "School Management," pp. 108–129; Dutton, "School Management," chap. VI; Bagley, "Classroom Management," chap. XIV; "N. E. A. Proceedings," 1901, pp. 295–303; Search, "The Ideal School," chaps. I, III, VII; Roark, "Economy in Education," pp. 24–37; Gilbert, "The School and Its Life," chaps. VI, VII.

CHAPTER XII

THE DAILY PROGRAMME

I. **Importance and Objects.**—The making of a programme for any school is a difficult problem, for it involves all the fundamental principles which govern the construction of the course of study and the organization of the school. The programme represents the organized efforts of all the school authorities to accomplish the aims of the school through carefully planned, well-directed, continuous work. Some of the leading objects of the daily programme are:

(1) It is a chief means of keeping the teacher in constant and helpful co-operation and unity with all the classes of the school and all the pupils of each class. It is a general plan of the daily work for every member of the school, including the teacher.

(2) Without such a prearranged and systematic schedule of recitations and study periods, there would be hesitation, delays, great loss of time and energy, and constant temptation to putter over work or shirk it altogether; for at the close of every lesson the pupils would have to stop to think what to do next.

(3) A good programme is a great aid in the easy control of the school, for when pupils know just what their work is, just when each lesson is to be prepared and recited, there is no excuse for idleness and no time for mischief. It is a silent but constant monitor, calling every pupil to

perform the duty nearest at hand. It embodies regular, steady, rational authority, and makes this the guiding principle of the school rather than the spasmodic, irregular, personal authority of the teacher.

(4) Thus the programme becomes a valuable agent in training pupils in habits of regularity, methodical work, obedience to rightful authority, and a sense of personal responsibility. The importance of this function of the programme may be inferred from the following statement by Professor James: "There is no more miserable human being than one in whom nothing is habitual but indecision and for whom the time of rising and going to bed every day, and the beginning of every bit of work, are subjects of express volitional deliberation."

(5) A good daily programme permits the work of the school to be done with the least amount of noise, friction, and nervous strain; it concentrates the efforts of the pupil upon one thing at a time; it secures the exercise of all the different powers of the child in due proportion, and enables the teacher to make specific daily preparation for every exercise.

II. **Factors in the Problem of Making a Programme.**—While schools vary greatly in the number and age of the pupils, the studies, and the number of classes required, still there are certain factors in all schools that are constant and must, therefore, always be prominent in determining the programme.

(1) *The Time Element.*—This includes (*a*) the length of the school year; (*b*) length of the school day; (*c*) time to be deducted for recesses and intermissions. In the United States, custom, which has almost the force of law in this case, has fixed the length of the school year at from eight to ten months of twenty days each, or one hundred and

sixty to two hundred school days. The school day is usually six hours, although there is a tendency to shorten this somewhat in the primary grades. There are two recesses of fifteen minutes each and generally one hour for noon intermission. This gives the teacher about five and one-half hours, or three hundred and thirty minutes, each day for actual instruction. It is of vital importance that this time should be used to the best advantage and should be properly apportioned among the various subjects included in the course of study. This leads us to the consideration of the second important factor.

(2) *The Subjects and Their Relative Importance.*—The subjects are quite generally determined by the school authorities, so that the teacher has very little discretion as to what shall be taught. But since the teacher, as a rule, must determine how much time each subject shall have and what place it shall occupy, the question of the relative value of the various subjects is, in reality, a question to be solved by the teacher. In Chapter IX it was shown that there are six groups of studies included in the curriculum. Now every day's work throughout the elementary course should provide for exercises in all of these six groups—should present, as it were, a cross section of all of them. In determining the time each study shall receive, the teacher should consider: (*a*) Its importance as a means of the further acquisition of knowledge by the pupil; (*b*) the degree in which it affords mental training in some specific line; (*c*) its value as practical and permanent knowledge; (*d*) its relative difficulty as compared with other subjects.

The following division of the time among the six groups of studies is suggested: Language, including reading, spelling, writing, language, and grammar, 40 per cent. of the whole time; arithmetic, 15 per cent.; science, including

nature study, geography, and physiology, 12 per cent.; history, 10 per cent.; art, including music and drawing, 8 per cent.; motor activities, including handwork, physical culture, manual training, and general exercises, 15 per cent. Reduced to minutes, language would receive about 130 minutes; arithmetic, 50 minutes; science, 40 minutes; history, 35 minutes; art, 25 minutes; motor activities, 50 minutes.

These estimates give the average time for the eight grades and are subject to some modifications. In the lower grades language may fairly claim the one hundred and thirty minutes, for it is the tool which the pupils must learn to use in order to master the other subjects of the course or use books independently. In the higher grades language should receive less time and history and science more time. Again, fifty minutes a day for arithmetic is altogether too much for the first two years of the course, and the time taken from arithmetic should be given to handwork and general exercises. In the same way the time for music and drawing, subjects that require no study period for preparation, should vary according to the grade.

(3) *The Succession of Studies.*—Not less important than the time devoted to a subject is its place in the programme. Long before child-study specialists had demonstrated the principle that the capacity of children for sustained attention varies greatly with the different periods of the day, observant teachers had discovered that some periods are very much more favorable than others. These facts concerning fatigue in children are pretty well established: (*a*) Fatigue is caused by overtaxing the brain and may be defined as decreased capacity for mental work. (*b*) Fatigue differs from weariness, which is simply the result of monotony and lack of interest and effort. (*c*) The signs

of fatigue are loss of the ability to give attention, decrease of accuracy in all work, weakened power of perception and memory, greater errors in judgment, lack of self-control, lower work rate, and less responsiveness to all kinds of stimuli. (*d*) The most favorable school periods are shortly after the opening of the morning session up to 10.30 A. M., and from the beginning of the afternoon session to 2.15 P. M. The average difference between the best periods and the poorest ones is from ten to thirty per cent., though with individual pupils it may be much greater. (*e*) The studies that make the greatest demands upon the nervous power of the pupils are, in order: mathematics, gymnastics, language, history and science, music, drawing, and handwork. Of course this general order would vary according to the grade and the newness of the subject for any special class. Reading, spelling, and drill work are very taxing for beginners. (*f*) The major offsets to fatigue are sleep and nutrition; the minor offsets are rest, free play, and change of occupation and posture. The teacher should realize, too, that inattention of the pupil is sometimes "nature's safeguard against over-fatigue," and that it is not so much the effort required for study as the manner, method, and spirit of the teacher that is responsible for the amount of fatigue produced by school work.

These facts should be carefully considered in arranging the order of studies in the programme, for to conserve the vitality and nervous energy of children is even more important than to economize their time. In the lower grades the formal studies, such as arithmetic, reading, writing, language, and spelling should come at the more favorable periods, but two such subjects should not occur in immediate succession. The periods in these grades should be

short. The Committee of Fifteen recommends recitation periods of fifteen minutes in the first and second years, twenty minutes in the third and fourth years, twenty-five minutes in the fifth and sixth years, and thirty minutes in the seventh and eighth years. There must also be frequent change of posture, variety of method, and occasional rest intervals, songs, or games. On no account ought the outdoor recess to be abolished for young children. Opening exercises should be bright and cheery and all general work carefully planned. It should be well understood by the teacher that mere change of occupation does not constitute an effective remedy for fatigue. The real remedy lies in the amount of interest evoked by the new occupation, the different kind of attention required, and the different muscles that are called into action. Finally, it must not be overlooked that children must use up a vast amount of nervous energy in learning to perform acts and processes which grown-up people can do automatically. It is a universal law that the first movements in acquiring skill along any line require far more nervous energy and vitality than is needed later. In the school the pupil finds himself in a new environment, confronted with many new and difficult problems, and to meet the daily demands made upon him he must use to the utmost his nervous energy. Every unfavorable circumstance, every fit of fretfulness or bit of nervousness on the part of the teacher, only makes his task the harder and more life-destroying.

III. **Summary of Principles.**—Some of the leading principles involved in the preceding discussion may here be stated.

(1) The daily programme should provide for study periods as well as for recitations. Definite work should

be provided for every class and every pupil during the entire day.

(2) Each subject in the course of study must receive the time and attention that its relative importance demands.

(3) The studies requiring the greatest expenditure of nervous force on the part of the pupil should be given the most favorable periods of the day.

(4) The length of the recitation and study periods should be regulated by the age of the pupils and the nature of the subject.

(5) Where the number of classes would be too great, studies must alternate, classes be combined, or some capable pupil must be utilized as an assistant.

(6) The programme must be planned and adapted to fit the needs of the school.

(7) Very little home work should be demanded of the pupils in the elementary grades. If home work is required in the upper grades, it should not be arithmetic or grammar.

(8) Variety of occupation, intervals of relaxation, and periods for individual instruction of pupils should be provided for.

(9) Exercises, like writing and drawing, requiring steady nerves, should not be placed immediately after an intermission.

IV. **Programme for a Rural School.**—As a suggestive programme for a country school of four divisions we give the following, which is an exact copy of the winter-term programme of a rural school-teacher in Cerro Gordo County, Iowa.

The second programme is one that was prepared for the "Hand-Book for Iowa Schools," edition of 1906. It presents the serious problems confronting the teacher of a large country school in which five different divisions must

be made. Of course, in such a school the number of classes should be reduced and the length of the most important recitations increased by applying the fifth principle above. Ten-minute recitations for large classes are wholly inadequate, and must inevitably lead to superficial work. *Italics* indicate recitations.

V. **Keeping to the Programme.**—There are many strong temptations every day to violate the provisions of the programme. Some teachers habitually "run over time." Others prolong recitations in the studies they like best. Still others vary the programme for every visitor, attempting to "show off" only the best classes. All these things should be avoided. Surely if the teacher does not keep to the programme, pupils will not do so. Study periods will be thrown into confusion; some classes must recite on short time or not at all; pupils never quite know what may happen and will take chances on preparation; and the moral effect of a programme is almost wholly counteracted. As we have shown, one of the main objects of the programme is to regulate the study periods and seat work of the pupils, and this cannot be accomplished successfully unless the teacher adheres rigidly to the programme as made out. Pupils are not to be left to shift for themselves during the study periods. To permit this is fatal to good order, and the teacher who permits it will be in great danger of becoming a chronic keeper of pupils after school to make up their lessons. The teacher shows as much power and skill and aids the pupils as effectively in directing their seat work and study of lessons as in conducting the recitation.

The daily programme should be in a conspicuous place in the school-room. It should be changed only on proof that revision is desirable. Pupils should be familiar not

PROGRAMME FOR SCHOOL OF FOUR DIVISIONS

RECITATIONS	TIME	SECOND GRADE	THIRD GRADE	FOURTH GRADE	FIFTH GRADE
Opening Exercises	9.00–15				
Reading, 5th Grade	9.15–15	Reading	Reading	Reading	
Reading, 2d Grade	9.30–15		Reading	Reading	Arithmetic
Reading, 3d Grade	9.45–15	Writ. Work		Reading	Arithmetic
Reading, 4th Grade	10.00–15	Writ. Work	Writ. Work		Arithmetic
[1] B Arithmetic, 5th Grade	10.15–15	Handwork		Writ. Work	
Recess					
[2] A Arithmetic, 5th Grade	10.50–15	Arithmetic	Arithmetic	Arithmetic	
Arithmetic, 2d Grade	11.05–10		Arithmetic	Arithmetic	Geography
Arithmetic, 3d Grade	11.15–15	Arithmetic		Arithmetic	Geography
Arithmetic, 4th Grade	11.30–15	Reading	Arithmetic		Grammar
Geography, 5th Grade	11.45–15	Handwork		Arithmetic	

Noon					
[3] Music	1.00–15				
Reading, 2d Grade	1.15–10		Language	Language	Grammar
Grammar, 5th Grade	1.25–15	Language	Language	Language	
Language, 3d and 4th Grades	1.40–25	Language			Spelling
Spelling, 5th Grade	2.05–10	Language	Reading	Geography	
[4] Writing	2.15–15				
Recess					
General Lessons, 2d Grade	2.50–10		Reading	Geography	History
[5] Reading, 3d Grade	3.00–10	Spelling		Geography	History
Geography, 4th Grade	3.10–15	Spelling	Spelling		History
History, 5th Grade	3.25–15	Spelling	Spelling	Spelling	
Spelling, 2d and 3d Grades	3.40–10			Spelling	Reading
Spelling, 4th Grade	3.50–10	Handwork	Writ. Work		Reading

[1] and [2] The Fifth Grade was divided into two divisions in arithmetic.

[3] Music comprised two classes—one division had written work one day while the other had practice in reading music, etc.

[4] Writing three days and drawing two days of each week.

[5] The Third Grade took primary physiology part of the time in place of reading.

PROGRAMME FOR SCHOOL OF FIVE DIVISIONS

TIME	FIRST PRIMARY	SECOND PRIMARY	FIRST INTERMEDIATE	SECOND INTERMEDIATE	ADVANCED
9.00	Opening Ex.	Opening Ex.	Opening Ex.	Opening Ex.	Opening Ex.
9.10–10	*Reading*	Reading	Reading	Arithmetic	Arithmetic
9.20–10	Copying	*Reading*	Reading	Arithmetic	Arithmetic
9.30–15	Copying	Written Work	*Reading*	Arithmetic	Arithmetic
9.45–15	Blackboard Wk.	Written Work	Arithmetic	*Arithmetic*	Arithmetic
10.00–15	Reading	Drawing	Arithmetic	Drawing	*Arithmetic*
10.15–15	Reading	Number Work	*Arithmetic*	Reading	Written Work
10.30–15	Recess	Recess	Recess	Recess	Recess
10.45–10	*Reading*	Number Work	Arithmetic	Reading	History
10.55–10	Written Work	*Numbers*	Reading	Reading	Reading
11.05–10	Written Work	Reading	Reading	*Reading*	Reading
11.15–10	Handwork	Reading	Nature Study	Physiology	*Reading*
11.25–10	Handwork	*Reading*	Nature Study	Geography	Geography
11.35–10	Number Work	Language Work	*Nature Study*	Geography	Geography
11.45–15	*Writ. and Draw.*	*Writ. and Draw.*	*Writ. and Draw.*	*Writ. and Draw.*	*Writ. and Draw.*

Noon					
1.00–10	*Numbers*	Handwork	Language	Geography	Geography
1.10–10	Number Work	Handwork	Language	Geography	*Geography*
1.20–10	Drawing	Reading	Language	*Geography*	Geography
1.30–10	Reading	Reading	*Language*	Grammar	Grammar
1.40–10	Reading	*Reading*	Composition Wk.	Grammar	Grammar
1.50–10	*Reading*	Nature Work	Composition Wk.	Grammar	Grammar
2.00–10	Nature Study	Nature Study		Grammar	*Grammar*
2.10–10	Nature Study	Drawing	Spelling	*Grammar*	
2.20–10	*Music*	*Music*	*Music*	*Music*	*Music*
2.30–15	Recess	Recess	Recess	Recess	Recess
2.45–10	*Nature Study*	*Nature Study*	Spelling	Physiology	History
2.55–10	Copying	Blackboard Wk.	*Spelling*	Physiology	History
3.05–10	Blackboard Wk.	Copying		*Physiology*	History
3.15–15	Language	Drawing	Library Work	Spelling	*History*
3.30–10	*General Lessons*	*General Lessons*	*General Lessons*	Spelling	Spelling
3.40–10	Reading	Reading	Arithmetic	*Spelling*	Spelling
3.50–10	Reading	Reading	Arithmetic	Arithmetic	*Spelling*

only with the programme, but also as far as possible, with the course of study. At the close of the term a copy of the programme should be left in the classification register for the benefit of the next teacher.

SUGGESTED READINGS

Baldwin, "School Management," part V; "Report of the Committee of Fifteen"; White, "School Management," pp. 86–94; Roark, "Economy in Education," pp. 64–72; Page, "Theory and Practice of Teaching," pp. 269–286; Tompkins, "School Management," pp. 130–133; "Report of the Committee of Twelve," pp. 166–171; Dutton, "School Management," chap. X; Bagley, "Classroom Management," chap. IV; Seeley, "A New School Management," chap. V; Perry, "The Management of a City School," pp. 96–102.

CHAPTER XIII

THE SCHOOL-ROOM AS A FACTOR IN ORGANIZATION

The Old-time School-house.—In 1837 Horace Mann stated in an official report that not one-third of the school-houses of Massachusetts were fit for habitation. And ten years later Lord Macaulay said of the common schools of England: "We know what such a school too often is: a room crusted with filth, without light, without air, with a heap of fuel in one corner and a brood of chickens in another; the only machinery of instruction a dog-eared spelling-book and a broken slate; the masters the refuse of all other callings."

The educational palaces, fitted with every convenience for comfort and health, that adorn so many of our larger cities bear witness to the wonderful improvement of school architecture in recent years. But in our smaller towns and rural districts school authorities are still too often content with the unsightly, poorly lighted, unventilated, badly heated, filthy structures and forbidding surroundings of the school buildings of a generation ago.

"The evils of unsanitary school-houses," says A. P. Marble, "have attracted most attention in the crowded school-rooms of cities, but these evils are not confined to densely populated places. The vigorous country boys and girls may for a time resist the evils of a school-room alternately too hot and too cold; of draughts of cold air in winter through cracks in the floor and poorly built walls; of out-

houses too filthy for use and sources of moral defilement; of seats and desks built for cheapness and not for comfort, and more racks for torture than like a perfect resting-place for the growing bodies of little boys and girls. But, however much the injury may be concealed, the deadly work goes on in many a country school. It is well known that no child can learn well or grow mentally when in bodily discomfort. Dulness, uneasiness, and consequent disorder in a school are often directly traceable to vitiated air." As recently as 1896 Hon. Henry Sabin, then State Superintendent of Iowa, said in a public address: "Yet in all this State there are comparatively few school-rooms in the building of which the supply of fresh air has been taken into account. This is as true in the city as it is in the country." And in speaking of the deplorable condition of the school out-buildings, the Superintendent of Public Instruction of Maine declared: "The condition of these hovels is so shocking that I feel justified in calling special attention, in strong language, to the duties of the towns in this connection." In the recently adopted "rules and regulations" of a certain city school board is this provision, under "duties of the janitor": "He shall scrub the floors *twice* each year." So it would seem that with all of our advancement in school architecture and school sanitation since the time of Horace Mann, there is still room for improvement, and teachers should be the apostles of a better hygiene.

The School-room Should Interest the Entire Community.—There is no other kind of public buildings in which all classes of the community ought to be so vitally interested as the school-house. For the children of the community the school-room is both a home and a workshop, a living-room and a library. It is where they spend a great portion

of their waking hours. Its influence on their health, their intellect, and their morals will abide through life. It should be a comfortable, cheerful, attractive place. Outside there should be little parks, trees, birds, flower beds, and ample grounds. Inside there should be sunshine, pure air, comfortable seats, tasteful furnishings, a good library, a workshop, and joyous life.

The School-room a Silent Teacher of Morals.—This home of the peoples' children should be kept as neat and clean as any other well-ordered home. "There is scarcely a sounder principle in pedagogy," says the "Massachusetts State Report of 1895," "than that care begets care; order, order; cleanliness, cleanliness; and beauty, beauty. Things conspicuously good command the respect of children, invite their imitation, and in ways real, though obscure, sink into their souls and mould their being."

The school-room should be a positive and elevating moral influence in the life of every pupil. Children seldom learn to respect themselves unless their surroundings are respectable. "Day by day beautiful, comfortable, and clean surroundings will have their ethical influence upon the pupil's development, until he comes in time to abhor anything that is not beautiful, well-ordered, and clean." "When pupils grow up and have homes of their own they must have them clean, neat, bright with pictures, and fringed with shade trees and flowers, for they have been brought up to be happy in no other environment." "The true test of our civilization is the kind of home we are content to live in, and the influence of our schools should help to form a disposition for these things that make home life happy and healthy." These extracts from the "Report of the Committee of Twelve" are not too strong.

The Relation of School Hygiene to Good Order.—The law of co-operation demands unity between the teacher and pupils. Everything that interferes with this unity subtracts so much from the effectiveness of teaching and of learning. The condition of the school-room must not divert the energy of the pupils from the learning process. Now it is too much to expect children to be good and studious when they are in bodily discomfort. To them Dr. Johnson's famous saying: "Every man is a rascal when he is sick," applies with special emphasis. Their physical condition must be such that they will have no need or wish to think about it. If the room is too cold or too hot, the air impure, the light too strong or dim, the seats uncomfortable, the pupil's attention is diverted from his studies, his mind is irritated, his worst instincts come to the surface, and his conduct soon leads to collisions with the teacher. Gilbert Morrison says: "Every observing teacher knows the intimate relation between the vitiated air in the school-room and the work he wishes the pupils to perform. Much of the disappointment of poor lessons and the tendency to disorder are due directly to this cause. The brain unsupplied with a proper amount of pure blood refuses to act, and the will is powerless to arouse the flagging energies. The general feeling of discomfort, dissatisfaction, and unrest which always accompanies a bad state of the blood breeds most of the school-room squabbles, antagonism, misunderstanding, and dislike which are wont to occur between teacher and pupil. The pupil apparently at variance with his teacher is really at war with his own feelings, caused by an impure and stagnated condition of the blood."

The Question of Health.—The demands which modern civilization makes upon the health and physical soundness

of the individual seem to be increasing continually. Our intense modern life with all its complexity, its rush and roar of traffic, its social unrest and keen competition, its tendency to congregate in cities, makes greater and greater demands upon all classes of our people; and if the American race shall be able to bear the strain—shall be saved from degeneracy—the physical and nervous energy of our children must not be exhausted in the process of education. Their school work must not be done under extreme pressure, causing physical stunting, mental worry, and fatigue. Their school life must be made happy and cheerful and must appeal to them as worth living now, not as simply preparing them to live by and by. Above all, there must be in the school, teachers who comprehend the physical limitations of mental work, teachers who have learned to say with Dr. Hall: "What shall it profit a child if he gain the whole world of knowledge and lose his health, or what shall he give in exchange for his health?" P. W. Search maintains that "the prime requisite in the education of the child must be health; that good health is subject to command; and that the school must be measured by the extent to which it contributes directly to this realization." It is true that teachers must make the best of the school-room conditions as they find them, but to make the best of these conditions constant care and oversight are absolutely necessary. The conditions requiring the teacher's conscientious supervision are those relating to (1) the care of the eyes, (2) correct postures, (3) comfortable temperature, (4) pure air, (5) contagious diseases, (6) general care and cleanliness of the room, (7) over-pressure of delicate or nervous children.

(1) *Care of the Eyes.*—Short-sightedness, or myopia, with its attendant evils of headaches and general nervous

derangements, is in danger of becoming the curse of modern childhood. It is the result of too steady application of the eyes to close objects, especially under unfavorable conditions. All the investigations of this subject point to the conclusion that myopia is essentially a school disease, that both the degree of near-sightedness and the number of pupils so afflicted increase from grade to grade as pupils advance in their course; and that from twenty to thirty per cent. of the pupils who complete a high-school course are near-sighted.

The causes of myopia are bad light; text-books with poor type, paper, or print; whatever tends to congestion in the head, as overheated rooms, unnatural positions of the body, bending over work at the seat, wet feet, and too long-continued study; bad ventilation; poor black-boards; and lack of out-door exercise.

In regard to the light of the school-room: It should come chiefly from the left side of the room and through the upper part of the windows. The window space should be one-fifth of the floor space, and the top of the windows should reach nearly to the ceiling. The shades should be of some light color and semi-transparent. On account of the cross-lights, the space between windows is not good for black-boards, the walls should not be smoothly finished and should be tinted a light gray, pearl, brown, lavender, or green. Every school-room should admit the direct rays of the sun during some part of the day.

But no matter how perfect the arrangements for lighting the school-room may be, it will require the constant watchfulness of the teacher to make them effective in preventing injury to the eyes of children. The secretary of the Iowa Board of Health gives the following suggestions for the care of the eyesight of school-children: (*a*) Require pupils

to sit erect while studying, with the book not less than twelve to fifteen inches from the eyes. (*b*) See that pupils have well-printed books. (*c*) Furnish abundant light from the left side of the room. (*d*) Regulate the temperature of the room very carefully. (*e*) Secure good ventilation. (*f*) Test children for near-sightedness, and see that pupils who need them are provided with glasses. (*g*) Do not require too long periods of study.

(2) *Correct Posture.*—With the lengthening of our school year and the shortening of recesses the tendency of our school practice is to make man a sitting animal; but it is a crime against childhood to confine little folks for long periods to uncomfortable seats. Either the school hours for children in our primary grades should be shortened or more of their work should be done in workshop, field, and laboratory. Even with these much-needed reforms it must still be assumed that much of the child's school work will be done at his desk; and since his bones and muscles are so plastic, and there seems to be a natural disposition for pupils to assume uncouth and unhealthful positions, the greatest care is necessary on the part of the teacher to prevent malformations and serious bodily derangement. Of course no form of seat or desk can be devised that will wholly prevent the physical evils of remaining a long time in one position. But if teachers are careless, or seats not well adjusted to the pupils, the inevitable results are round shoulders, congested brain, poorly developed chest, nearness of sight, curvature of the spine, and misshapen thigh bones.

The desk may be too high for the pupil, thus raising his arm unduly in writing and bringing the book too near his eyes in studying; or too low, compelling him to bend over his work. The vertical distance of the desk top

above the seat should be one-sixth of the child's height, and the width of the seat should be about one-fifth of the child's height. A flat-topped desk forces the pupil to lean forward in a stooping position in order to bring the line of vision perpendicular to his work. The height of the seat should be such that the feet may rest on the floor without raising the knees. The back of the seat should be curved. A perpendicular line from the edge of the desk to the floor should fall one or two inches within the edge of the seat. Seats in every room should vary in size or be easily adjustable, and should be simple, neat, and durable. For reasons of health and good order, single desks are far preferable to double ones. An English writer says: "At present it is not uncommon to find schools with expensively equipped gymnasiums but with desks whose evil effects on the pupil's physical development cannot be counteracted by occasional gymnastic exercises." Above all, teachers must resolutely and persistently drill pupils in habits of correct sitting, standing, holding the book when reading, and maintaining correct positions in writing and drawing. This requires on the part of the teacher strength of purpose, exact knowledge of the great dangers of incorrect postures in producing permanent bodily injuries, definite remedies, and almost infinite patience.

(3) *Comfortable Temperature.*—Of all methods of heating school-rooms, the commonest and the worst in rural schools is the unjacketed soft-coal stove. Such a stove heats the room by direct radiation, provides no means of ventilation whatever when the draught is closed, permits the escape of poisonous gases into the room, burns the moisture out of the air, and requires constant attention to maintain an even temperature. The pupils farthest from the stove are cold, while those nearest to it suffer with the

heat, and all are hindered in their work and injured in health. Teachers are made nervous and irritable by breathing impure air and think the pupils are stupid and hard to manage. No greater economy can be practised by school boards than to provide for the proper and adequate heating and ventilation of the school-house.

While the teacher is not personally responsible for the method of heating provided by the school board, by a little tact and good sense unfavorable conditions can be greatly improved. A good ventilating stove could be secured at a little additional expense; thermometers could be supplied; and greater care could be taken to have the room comfortably warmed by nine o'clock and the temperature maintained at from sixty-eight to seventy degrees during the day.

(4) *Pure Air.*—Closely connected with the subject of heating is that of ventilation, and every teacher should be familiar with some good book on this subject. Even where the janitor is responsible for the heating and ventilation of the school-room, the teacher should be thoroughly acquainted with the general principles of ventilation, and should see to it that these principles are properly applied.

The average pupil requires thirty cubic feet of fresh air each minute, or from three to four thousand cubic feet every hour. Air which has been breathed once has lost five per cent. of oxygen and gained five per cent. of carbonic-acid gas. Thus each pupil gives off into the room about six-tenths of a cubic foot of carbonic-acid gas each hour. Besides this, a large amount of watery vapor, and worn-out cells in the form of organic matter are constantly breathed out into the atmosphere of the school-room. Added to these there are almost numberless sources of

impurities in the air of the school-room, such as dust and dirt from the floor, chalk-dust and coal-dust, bits of hair, and worn-out clothing. Then, too, it must not be forgotten that some of the pupils come from homes where cleanliness is surely not next to godliness—pupils with unwashed garments and bodies, disease germs, unbrushed teeth, and chronic colds, and from homes afflicted with tuberculosis. The immediate effects of breathing the air laden with these impurities are restlessness, lack of attention, drowsiness, and headache; and the remote effects are chronic ailments of throat and lungs, persistent headache, and extreme susceptibility to colds, catarrh, and contagious diseases. The Board of Health of New York asserts that forty per cent. of all deaths are caused by breathing impure air. Medical authorities agree that breathing impure air is the prime cause of consumption and is the chief means of spreading infectious diseases. Obtuse, indeed, must that teacher be who in the face of all these well-established facts makes no effort to secure the very best ventilation possible; and to realize the vital importance of good ventilation is the first and most important step in securing it. Much may be accomplished, even where the room is heated by a stove, by proper management of the windows, by flushing the room with pure air during all intermissions, by thoroughly airing the room at night and in the morning, by insisting that pupils come to school decently clean, by vigorous use of broom and scrubbing brushes, by providing good foot-scrapers and mats, by requiring pupils to eat their dinner in a civilized fashion, and by the proper use of disinfectants.

Landon says: "When suitable means for healthy work exist the teacher should look keenly to himself that they are most scrupulously attended to; where suitable means

do not exist he should leave no stone unturned to get matters righted at the hands of the managers. To work continuously in a close, stuffy room is slow suicide."

(5) *Contagious Diseases.*—As long as our schools are not subject to regular medical inspection, the teacher must assume considerable responsibility for the prevention of contagious diseases among pupils. No child should be permitted to attend school if he comes from a home where any contagious disease is known to exist, and no pupil who has been out of school because of having such a disease should be received back into the school without a physician's certificate. The symptoms of most of the common contagious diseases are quite similar and are readily detected. No risks should be taken, and when pupils are feverish, have sore throats, and manifest any other symptom of measles, scarlet fever, or diphtheria, they should be cared for at once.

(6) *Care of the School-room.*—Throughout this discussion the teacher's responsibility for the general care and cleanliness of the school-room has been emphasized. Others may shirk their duty, but the teacher must not make this an excuse for shirking his duty. His own health is at stake as well as that of his pupils. It may be difficult at first for a new teacher to gain the active co-operation of the parents or even of the school officers, but an earnest, tactful teacher can always enlist the cheerful assistance of the pupils in improving the school-room and its surroundings. The erasers should be kept clean, the desks free from dirt, the stove polished, the windows washed, the floor scrubbed and always free from litter, the books in order when not in use, all apparatus in its place, the outhouses in good condition and free from marks, the drinking-cup cleansed, and the school premises free from ashes and

rubbish. The teacher who keeps the school-room shiftlessly will be justly suspected of shiftless teaching.

(7) *Over-pressure of Exceptional Pupils.*—In every school exceptional pupils will be found. Some are unduly precocious; others are unduly dull. Some are delicate in health or growing rapidly or have been ill. Others may be defective in sight or hearing. All such children should be studied carefully by the teacher, and on no account should they be goaded on beyond their power and strength. Home study must not be required of them. Time to make up their work must be given to pupils who have been ill. Defective children must have favorable seats. Delicate children must not be seated in the coldest corner, and all must be treated with consideration and tenderness.

Bookcases and Cabinet.—Every school-room should contain a good bookcase and a cabinet. The library books cannot be well taken care of without a proper bookcase. They should be kept in this case when not in use and should always be arranged in an orderly way. For work in nature study it is necessary to have specimens of the shells, minerals, soils, insects, plants, woods, and grains of the neighborhood. Pupils should be encouraged to help the teacher make as complete and valuable a collection as possible. "Whoever has not in youth," says Spencer, "collected plants and insects knows not half the halo of interest which lanes and hedge-rows can assume." The teacher's opportunity to inspire pupils with a love of nature and to cultivate habits of observation is limited only by his knowledge and his power of judicious guidance.

Other Furniture.—It seems strange that so many schoolhouses are still without the common necessary furniture of

the home. The poorest homes have some means of telling the time of day, drinking utensils for each member of the family, window curtains, wash-dish and soap, towels, broom, mop, door-mats, and an extra chair or two. Yet it seems never to have occurred to some school officers that children need any of these things at school.

Apparatus.—School apparatus includes all the appliances which are used for purposes of illustration in teaching. Such appliances in the hands of a teacher who knows how to use them greatly increase the effectiveness of instruction; they are to the teacher what tools are to the mechanic. Chief of these appliances is the black-board, and every school-room should be provided with generous black-board space. The material should be slate. When the long life of the slate board is considered, no "penny-wise" policy should induce any school board to invest in any so-called substitute for a good slate board. A few good charts are helpful and a dictionary is indispensable. No pupil should leave the school without learning to use the dictionary intelligently. For the teaching of geography there should be a set of good relief maps, a globe, a sand table, a cabinet for specimens, and clay for modelling. For arithmetic there are needed a numeral frame, a set of blocks, weights, and measures. For reading an abundance of supplementary books are necessary, including several complete sets of readers. Proper apparatus for games and gymnastics should also be provided.

It is needless to say that school boards would be far more willing to buy all necessary apparatus if teachers possessed more skill in its use and exercised greater care in its preservation. When not in use, each article should be put in its proper place and kept away from dust and careless hands.

Decoration.—The school-room should be not only clean comfortable, and healthful, but also beautiful. Little children are instinctively attracted to a pretty toy, a bright flower, a graceful animal, a pleasant face, a simple melody, but without a careful nurture and training this instinctive love of beauty may be so starved and perverted that they will soon prefer noise to music and take delight in deformity and ugliness. Plato emphasized the close relation between the beautiful and the good, and Hegel defined beauty as the "sensible manifestation of the spiritual."

School-room decorations cannot take the place of actual contact with nature in the form of flowers, birds, rocks, and streams out under the open sky, but they may be made a potent indirect means of teaching a love of beauty by revealing the wonders of all these things. They may induce and encourage moods of mind that enrich the life by lifting up the soul to higher and purer ideals.

Not all teachers are artists, and besides, it requires good sense as well as good taste to manage school-room decorations wisely. Bare walls are better than bad pictures. The only proper way to begin with some school-rooms is to clear out and burn the so-called decorations, yellow with age, cheap, dirty, and unhealthful, such as tissue-paper flowers, cheap chromos, and ancient wreaths of evergreens. To talk of decorating a dirty school-room is a contradiction of terms and a lesson in bad morals. It costs very little to kalsomine the walls and ceiling a pleasing tint, to paint the wood-work, to put the black-board in good condition, to procure curtains for the windows. A piece of pink or green cheese-cloth may be fastened smoothly to the wall to serve as a place to display specimens of work done by the pupils. Such specimens should be changed every few days and not left to gather dust and breed

disease. If possible, a few good pictures should be hung on the walls, reproductions of the works of some master, that can be understood and appreciated by children, chaste, simple, and distinct. Let the pictures of the school-room suggest the noblest types of animal life, lessons of brave deeds, splendid achievements, great cathedrals, child life, and mother love. There should be room for a large flowering plant, a flower-box in one of the windows, and a box where children may watch the germination and growth of seeds. Teachers everywhere should read and ponder these words from Supt. L. B. Evans, of Georgia: "The silent influence of clean surroundings, of cheerful teachings, of classical pictures and music and literature, the presence of flowers and their care, the planting of shade trees and studies of their growth, will be a supervision so constant and so searching that no child can escape it. Under its potent warmth, like the steady, quiet shining of the sun, the child-plant grows into all the marvellous possibility of flower and fruit."

The School Library.—The real value of teaching a child to read is measured by the kind of books he learns to love. Now an ordinary text-book is not a book to be loved; it is a skeleton, a mere epitome of some subject. It is full of general definitions and abstract principles. The study of the text-book on any subject should be supplemented by the systematic reading of good books on the same subject. These books should be in the school library. They should connect the lessons learned from the text-book with good general reading and literature. Geography and history are taught to little purpose in the school if they fail to create in the pupil the desire to know more of the people and products of other lands and other sections of his own land. Well-selected books of travel, biography, fiction,

and poetry should all be made the means of extending the lessons taught from the text-books. The report of the Committee of Fifteen says: "The works of literary art in the readers, re-enforced as they ought to be by supplementary reading at home of the whole works from which the selections for the school readers are made, will educate the child in the use of a higher and better English style. Technical grammar never can do this. Only familiarity with fine English works will insure one a good and correct style."

Moreover, the deepest moral lessons may be taught through the medium of some beautiful poem, like Longfellow's "Legend Beautiful" or Bryant's "Sella" and the "Little People of the Snow." Read such a poem to the children, help them to picture its scenes very vividly and catch its spirit and meaning. None but good books should be tolerated in a school library, and every teacher should know what constitutes a good book for children.

The books of the library should be a part of the daily life of the school. Passively handing out books to children does little good. Daily reference to them should be made in assigning lessons, and pupils should be taught how to read a book intelligently and required to make reports, oral or written, on what they have read.

In the hands of a cultured teacher the school library may serve as a link to bind together the home and the school, and to arouse the interest of parents in what their children are reading. There is no better intellectual and moral home influence than that which comes from reading a good book aloud in the family circle. Morgan says: "Teachers can suggest to pupils valuable books suitable for their age, attainments, tastes, and necessities. Many a boy has been ruined by the dime novel who might have been saved

by reading books of real adventure and true heroism suggested to him by some thoughtful, faithful teacher. Seldom does a day pass when the vigilant teacher has not an opportunity, either in class or in private conversation, to drop into the prepared soil of some pupil's mind a hint of some valuable book to read."

"What teacher of yours helped you most?" I once asked a successful lawyer, noted for his high ideals and true manliness. His reply was: "It was a Miss R——. One night she called me to her desk and gave me a book to read. I read it, and it made me a man. It was 'Plutarch's Lives.'"

SUGGESTED READINGS

Tompkins, "School Management," pp. 72–84; Wray, "Jean Mitchell's School," pp. 32–38 and 149–151; "Report of Committee of Twelve," pp. 73–75; Bagley, "Classroom Management," chap. VI, and "Educative Process," chap. XXVIII; Thorndike, "The Principles of Teaching," chap. II; Sabin, "Common Sense Didactics," chaps. X, XVII; Dewey, "The School and Society"; Morrison, "Ventilation"; Newsholme, "School Hygiene"; Dutton, "School Management," chaps. IV, V; Kratz, "Studies in the Schoolroom," chap. VIII; Page, "The Theory and Practice of Teaching," chap. XIII; Barnett, "Common Sense in Education and Teaching," chap. III; Shaw, "School Hygiene"; Compayré, "Psychology Applied to Education," chaps. I, II.

PART III

THE TEACHER AS INSTRUCTOR

CHAPTER XIV

THE WORK OF THE SCHOOL AND THE TESTS OF SCHOOL WORK

"Hearing Recitations" Not School Work.—The teacher's work is often spoken of as "hearing recitations." And the pupil's work is thought to be simply learning lessons just to recite them. This is a sorry conception of school work. Study and recitation are, it is true, important parts of the work of the school. But if such work is devoid of interest and aim it becomes a mechanical grind, a method of killing time, and does not take hold of the pupil's inner life in such a way as to build up character. Hearing lessons recited is not teaching, nor does any pupil secure ideas by merely memorizing words. And since memorizing words is not acquiring knowledge, it is plain that reciting to the teacher words so memorized is not a knowledge-getting process and is not school work in the true sense.

"Keeping Order" Not School Work.—Keeping order is one of the teacher's duties, but this cannot be the essential thing in school work, for it would not differentiate the teacher's work from that of a policeman. No surer way of defeating all the higher aims of the school can be devised

than to set up order as an end in itself regardless of how it is obtained. The dangers of employing immature and untrained teachers to govern children are far greater morally than intellectually. Channing said: "A child compelled for six hours each day to see the countenance and hear the voice of an unfeeling, petulant, passionate, unjust teacher is placed in a school of vice." This is strong language, but the statement is perfectly true, for there is no better place to develop impudence, disobedience, deceit, sullenness, shrewd malice, and a vindictive spirit than is such a school.

Helping the Child to Realize His Possibilities is School Work.—The work of the school should be in harmony with the nature and aims of the school. Neither the limitations nor the possibilities of the school should be lost sight of. "What can the school and the teacher do for the child anyhow? Not very much, I tell you." This was the sneering question and inevitable answer of a dyed-in-the-wool believer in the power of heredity as the chief factor in shaping the child's life and character. But to any fair-minded man or woman such a statement must seem extreme and even ridiculous. If our teachers and our schools are not doing very much to change the child's character and shape his destiny they should be reformed or abolished. The character of the pupil is greatly modified under the instruction and guidance of the true teacher (1) by the knowledge acquired; (2) by the habits formed; (3) by the power and skill gained; (4) by study and reflection under favorable conditions; (5) by association with other children under wise supervision; (6) and by the daily example and inspiration of a leader, wise, and generous and just, who holds before each pupil an ideal self and points the way to its realization.

Two Important Articles of Faith in the Teacher's Creed. —These two articles of faith are (1) a belief in the "connectedness of humanity," as Froebel puts it—belief in the natural capacity of the average child and his ability and tendency to grow into the typical man; (2) the tremendous influence of the cultured and sympathetic teacher in directing and aiding the child's development. Pestalozzi taught us to have faith in the capacity and educability of the ordinary boy and girl. Not many teachers would want to undertake to teach a school of seventy or eighty pupils like those that Pestalozzi taught at Stanz: "Most of them on their arrival were very degenerated specimens of humanity. Many were almost skeletons, with haggard, care-worn faces and shrinking looks; some were accustomed to begging, hypocrisy, and all sorts of deceit; others were broken by misfortune, patient, timid, suspicious, and entirely devoid of affection. But what was common to all was a persistent idleness, the result of their want of physical and mental activity. There was hardly one in ten that knew his A B C's. But this complete ignorance was what troubled me least, for I trusted in the natural powers that God bestows on even the poorest and most neglected children. I had observed for a long time that behind the coarseness, shyness, and apparent incapacity of children are hidden the finest of faculties, the most precious powers; and now even among these poor creatures by whom I was surrounded at Stanz, marked natural abilities soon began to show themselves. It was my object to arouse these powers, for I was convinced that I should be able to form the hearts and minds of these children almost as I wished. I felt sure that my affection would change the nature of these children as quickly as the sun changes the frozen earth in the spring, nor was I wrong."

Work Defined.—No one must infer, however, that great changes in the character of pupils can be wrought by aimless, unplanned, hap-hazard school work. Indeed, "aimless work" is a contradiction of terms. Work is energy put forth for a purpose. It is exertion guided by aim. It is the best means of accomplishing a certain definite end. This aim must be in the mind of the worker from the beginning and must guide the choice and the use of means to attain the desired end. Held to this definition of work, much that passes in the school-room for work is not work at all. There may be regular effort on the part of the teacher, but it is only "marking time." There may be vigorous exertion, but it is only "beating the air." There may be conscientious activity, but it is not work, for it does not accomplish any educational result.

What School-Work Is.—There are shiftless teachers as well as shiftless farmers and shiftless housekeepers. There is a striking paragraph on work in "Uncle Tom's Cabin," in which Mrs. Stowe describes that personification of common-sense and Yankee thrift, Miss Ophelia. "The great sin of sins in her eyes—the sum of all evil—was expressed by one very common and important word in her vocabulary, 'shiftlessness'; and by this word she characterized all modes of procedure which had not a direct and inevitable relation to the accomplishment of some purpose then definitely held in mind. People who did nothing, or who did not know exactly what they were going to do, or who did not take the most direct way to accomplish what they set their hands to, were objects of her entire contempt." Applying these tests to the school, we readily see that school work ought not to be shiftless work, not aimless effort, but a systematic, vigorous putting forth of effort to realize a definite aim.

(1) *School Work Not "Puttering."*—From the very first, pupils should have definite work with a definite aim, and should be encouraged to do this work in the shortest possible time. Idling and dawdling over school work should not be permitted. Better a great deal to shorten the school day in primary grades, or let the little ones go out-of-doors to play, or take a nap in the school-room than to have them do over and over so-called "busy work' which they have outgrown and of which they are heartily tired. Shrewd old John Locke called the state of mind produced by such monotonous work "sauntering." Sauntering is the opposite of childish eagerness and curiosity. It is a listless carelessness, a want of regard to anything, and a trifling over all work. Locke says: "I look on this sauntering as one of the worst qualities that can appear in a child, as well as one of the hardest to be cured where it is natural." The pupil who loses his eager, questioning spirit, his God-given curiosity, without acquiring other strong motives to mental effort is a nearly hopeless case. One of the best results which can come from work in the primary grades is to develop the child's natural curiosity into a genuine love of knowledge. Every one knows how eager children are to learn before they enter school—how interested in all that goes on around them, how full of questions, what keen observers, what ready talkers; and when one sees these same children transformed in a few years of school life into listless, unobserving, tongue-tied boys and girls, without curiosity, ambition, or interest, he cannot escape the conclusion that such a change must be caused by poor teaching.

(2) *School Work More Than Play.*—The school should not be an educational vaudeville. There is a delightful theory that school work may be so interesting and pleasant

for pupils that it is all play. The "doctrine of interest" as applied to school work has been greatly misunderstood. There is an interest which is a natural form of intellectual feeling or emotion. It accompanies thought, prompts the will to act, and is re-enforced by thinking and acting. This is educative interest, and is the vital element in all effective school work. It is uplifting in its influence and abiding in its results, for it has the magic power of transforming the hardest lessons of the school into pleasant tasks. But this educative interest has its counterfeit. It is the shallow, fickle, reflex interest that accompanies the use of the senses only. It is one of the primitive forms of feeling, like fear and anger, but does not rise to the dignity of an emotion. It is transitory, and does not arouse the mind to think or to act. It is the interest that feeds on dime novels, shuns hard study, must always have something new, seeks emotional dissipation, shirks every difficulty, ignores duty, and ends in worthless character.

This counterfeit form of interest is very much in evidence in our schools. In their efforts to arouse interest the old-time teachers invented new forms of bribery in the shape of prizes; the average modern teacher worships at the shrine of new methods and devices. Our school supply houses do an immense business in supplying materials for "busy work." Patent devices for "arousing interest" are for sale at a penny a dozen. Our school journals are full of catchy "methods" for teaching reading, language, nature study, and arithmetic without mental exertion on the part of the pupil, and these often constitute the sole stock in trade of institute instructors. Such devices seem to work well, to arouse interest, to awaken sensations, and to afford momentary pleasure. But they may do all this and still be of no educative value, or be

even harmful, for although they may arouse interest, their use does not result in knowledge, power, or skill.

Interest for the sake of sensations merely is not educative. Interest that does not lead to investigation and comparison is only emotional dissipation. Interest must not be permitted to end in sensation and feeling; it must result in thought and choice and conduct to be really educative. Object-lessons, manual training, nature study, music, drawing, and domestic science cannot claim a place in the course of study simply on the ground that they are interesting. Sensations of touch and sight and sound are not knowledge, as so many teachers seem to think; they are only the raw materials out of which knowledge is made. Sense-impressions are exceedingly transitory states of mind, and the teacher who mistakes them for real knowledge will be surprised to find how quickly and how completely pupils forget their lessons. An inspector of schools once wrote: "To what purpose in life is a boy taught, if the intervention of a school vacation is to be a sufficient excuse for entirely forgetting his instruction?" The exceeding great facility which pupils display in forgetting is the result of either no interest at all, which means compulsory learning, or of making interest end in mere sense-impression, which means sensational learning—the sensations of one lesson being constantly superseded by those of the next. This is not real school work; it is largely a waste of energy. It is what Mr. Carter has called "the artificial production of stupidity in the schools."

(3) *School Work is Not Mere Drudgery.*—But in maintaining that school work cannot be made all play, it must not be supposed that we advocate making the school-room a place of drudgery. This was the great fault of the old-time school. There were no interesting games, no nature

study, no variety of method, no handwork, drawing, painting, moulding, and dramatizing. The routine of school work was unvarying. Object-lessons were unknown, and until the time of Comenius, text-books contained no pictures or illustrations. There were no slates or blackboards, no charts or globes, no experiments or laboratories, no physical training or excursions. Under such conditions the average teacher could not create interest in school work. Pupils learned their lessons because they were compelled to do so. Punishments were harsh and brutal. The school was regarded by the pupils as a prison house.

This conception of school work has not yet entirely disappeared. There are still many teachers who depend more upon force, threats, and punishment to secure study on the part of pupils than they do upon educative interest and good teaching. There are other more conscientious teachers who seem to be afraid that school work may become so interesting that it will fail to prepare pupils for the battles of life. Such teachers insist that pupils must be broken in to hard work, interest or no interest. Life, they say, is full of drudgery, and the pupil's school work should prepare him for such effort.

Such teachers have a mistaken conception of work. Work does not mean labor in the sense of disagreeable effort. School work performed under the spur of educative interest is not drudgery. It is the free expression of the pupil's activity as truly as play is such. We may compel a child to learn a lesson by heart, but we cannot force him to wish to comprehend it. Where one pupil learns to study hard by threats and punishment, ten pupils are made dull, stupid, and dishonest by such treatment. No teacher can really compel the child's

intellect to work alone; back of it there must be interest and will, and this interest should be spontaneous and natural.

This is what Comenius meant when he said: "Learning should come to children as swimming to fish, flying to birds, and running to animals." Without interest there can be no proper learning. And where the desire for learning is encouraged by parents and teachers, where the school buildings are light and clean and cheerful, where there are proper appliances for teaching, such as maps, charts, pictures, and libraries, where the subjects are not too hard for the pupil's understanding, where the teacher is kind, competent, and sympathetic, where public sentiment is heartily on the side of good schools, it should seldom be necessary to substitute force for interest as an incentive in school work.

"As a final test by which to judge any plan of culture," says Herbert Spencer, "should come the question, Does it create a pleasurable excitement in the pupils? Nature has made the healthful exercise of our faculties, both of mind and body, pleasurable. Experience is daily showing with greater clearness that there is always a method to be found productive of interest, even of delight, and it ever turns out that this is the method proved by all other tests to be the right one."

(4) *School Work is Creative Self-activity.*—School work should be done under the inspiration of educative interest, if it is to develop the intellect, strengthen the will, and mould the character. School work, as we have seen, is not play, neither is it drudgery. School work is steady, thoughtful, mental exertion directed by a definite aim. It is joyous, intellectual effort guided by a purpose. It is productive self-activity. It is guided self-expression.

It seems to me that Froebel's idea of utilizing in education the play instinct of the child has been unduly emphasized and with unfortunate results. Such over-emphasis leads to the error of supposing that work cannot be made interesting in itself and for its own sake. This is to misapprehend Froebel. In the "Education of Man" he preaches the gospel of creative work as the basis of sound education. He teaches that the starting-point of true education is action. "God," he writes, "creates and works productively in uninterrupted continuity. Each thought of God is a work, a deed. Man should work, should create, like God. We become truly God-like in diligence and industry; in giving body to spirit, form to thought; in rendering visible the invisible." Creative work, useful employment, not play, as mere amusement, are the root ideas of Froebel's philosophy.

The Tests of School Work.—The tests of school work are of two kinds. Some of these tests can be applied daily to every exercise or recitation. Other tests cannot be applied, it may be, for years. These two kinds of tests may be called immediate tests and remote tests.

(1) *Immediate Tests.*—Among the immediate tests are these: Does the school work accomplish day by day the objects for which the school exists? Is there a perfect understanding and sympathy between pupils and teacher? Do pupils work steadily under the inspiration of interest and duty? Are pupils attentive in the recitation? Are pupils regular and punctual in attendance? Are the recitations characterized by life, good-feeling, and spontaneity? Is the atmosphere of the school one of home-like cheer, freedom, and helpfulness? The teacher who can answer these questions in the affirmative need have little fear that his school work is not successful.

(2) *Remote Tests.*—The remote tests of school work are the pupil's success, in the best sense, and his character. Time alone can reveal the full result of the work of the school in shaping the life and character of the pupil. Teacher and pupil part at the doorway of the schoolhouse. After long years they meet again, clasp hands, look into each other's face. Not till then may the faithful teacher know the full power that he has exercised over the life of the pupil. Not till then may he hear from a grateful heart sincere thanks for the honest labors of former years. But it is worth the waiting.

One evening after a day's work in a normal institute in a city in Iowa I met a gentleman who was a stranger to me. He stopped and said: "I hear you are from C—— F——. Do you know Professor B—— there?" "Yes, very well," I replied. Then he said: "Well, when you go home, please give him my love, and tell him I think of him every day. He was my teacher twenty-seven years ago, and he first made me believe that I could be somebody. Through all these years he has been my ideal man." "And what is your name?" I asked. He told me his name, and I at once recognized it as the name of the member of Congress from that district, one of the noblest men in the State, a brilliant lawyer, a splendid man. I carried this message to Professor B——, and I shall never forget the look in his face as he said: "It is worth while to be a teacher."

SUGGESTED READINGS

Bagley, "The Educative Process," chap. VI; Thorndike, "The Principles of Education," chaps. III, V, XII; James, "Talks to Teachers," chaps. III to VII, and X; De Garmo, "Interest and Education"; Quick, "Educational Reformers," pp. 470–491.

CHAPTER XV

NATURE OF THE TEACHING PROCESS

Definitions of Teaching.—In studying the nature of the teaching process, we shall not derive very much aid from the attempts that have so far been made to define teaching. Indeed, Dr. Trumbull says: "Out of an extensive study of the literature of teaching, for now more than twenty years, I can say with positiveness that, from the days of Roger Ascham down to the latest European and American writers, hardly one writer in fifty has even attempted to tell his readers what he means by the term teaching, or to indicate the precise nature and limits of the teaching process as he understands that process. In hardly more than half a dozen instances have I found an educational writer attempting to explain his understanding of this term teaching."

Most of the attempts to define teaching are misleading, figurative, indefinite, or too general to serve any useful purpose. Some such definitions are these: "Teaching is the art of human development"; "Teaching is simply helping the mind to perform its function of knowing and growing"; "Teaching consists in fitting or dove-tailing new thoughts and emotions with those already in the pupil's possession"; "Teaching is the art of promoting self-evolution."

One of the best and most famous definitions of teaching is that of Jacotot: "To teach is to cause to learn." This

definition has served as a model of many others: "Teaching is causing another to know"; "Teaching is making the pupil think the thoughts of the lesson"; "Teaching is the occasioning of those activities in the learner that result in knowledge, power, and skill"; "Teaching is the process by which one mind, from set purpose, produces the life-unfolding process in another."

Teaching is a Two-sided Process.—All these definitions imply that teaching is a double process, and that where there is no learning there can be no teaching. Teaching always implies two persons both of them active over the same thing, but not in the same way. One teaches; the other learns. What is taught and learned constitutes the lesson. This lesson serves as the meeting-point of the teacher's mind with that of the pupil. All the work of the school revolves around this lesson. The teacher assigns it, the pupil studies it. In the recitation the teacher questions, the pupil answers; the teacher explains, the pupil gives attention; the teacher suggests data, the pupil infers results; the teacher illustrates, the pupil forms vivid images; the teacher points the way to a generalization, the pupil grasps a new thought. Thus the teacher must plan the work, determine the aim, direct the process; the pupil must be teachable, alert, self-active, receptive. The teacher instructs, tests, trains; the learner acquires knowledge, power, and skill; but all this is conditioned on the self-activity of the pupil. Learning is exactly what the teacher cannot do for the pupil. Joseph Payne says: "The teacher can no more think or practise or see for his pupil than he can digest for him or walk for him."

The Psychology of Teaching.—Stated in the simplest terms of psychology, the twofold process of teaching consists in stimuli presented by the teacher and appropriate

reactions to these stimuli on the part of the pupils. Learning in all its forms of knowledge, power, and skill, so far as school work is concerned, is the result of these reactions of the pupil to the stimuli presented and controlled by the teacher. The word stimulus here means any object, force, action, event, word, or idea that awakens a response in the pupil. The responses of the pupil include any act, emotion, thought-process, decision which is the result of the stimulus presented. From this point of view, teaching consists in the use of definitely and logically related stimuli planned and directed by the teacher, together with their corresponding reactions on the part of the pupil. When these stimuli are the teacher's presence, voice, manner, gestures, questions, explanations, illustrations, suggestions, and the responses of the pupils are interest, attention, answers, questions, discussions, solving a problem, drawing a picture, or reading a paragraph, the exercise constitutes a recitation and involves both teaching and learning.

Teaching Not a Mechanical Process.—While teaching has its mechanical side, it can never be a mechanical process. There must be a definite aim as well as material appliances and physical acts to accomplish these aims, but the process itself is always a mental, a spiritual one. Method, textbooks, devices, lessons do not constitute the teaching process. There must be the vital contact of mind with mind, and this contact must take place in the realm of the child's own personal experience. Teaching must begin within the range of the child's interests and must seek to enrich and develop those interests, for only in this way can instruction produce the life-unfolding process in the pupil. Learning is not a passive reception of subject-matter; for as Dr. Dewey says: "What a child gets out of any subject presented to him is simply the images which

he himself forms with regard to it." On the other hand, in the act of teaching, the true teacher is conscious of the lesson as subject-matter only as a means of developing the mind of the pupil. The pupil thinks the lesson, but the teacher must think the lesson plus the mental and spiritual processes by which it is being acquired and assimilated by the pupil. To do this requires an accurate knowledge of the pupil's capital and how it must be invested to yield the best returns.

The Child's Capital.—Teaching must appeal to the whole child—his bodily organism, senses, feelings, intellect, will. The teacher must take into account the pupil's original capacities and instincts, his inborn curiosity, love of activity and play, and his tendency to imitate. Nor must the acquired interests of the child be overlooked, his stock of ideas already accumulated, his habits already formed, his likes and dislikes, his fears and hopes and ambitions, his moral standards, his individual eccentricities. All these constitute the child's capital, and all these must be reckoned with in the process of teaching. So many teachers fail to see any real connection between psychology and the art of teaching that a brief discussion of the child's capital as related to the nature of the teaching process will be given.

(1) *The Child's Nervous System as Related to Teaching.*—The teacher stands outside of the child's consciousness, and can work on his life and mind only by affecting that consciousness through the nervous system by means of stimuli. These stimuli set into action the appropriate sensory nerves, through which means certain impressions are made upon the cells of the cortex. These impressions when interpreted by the mind give rise to images and ideas which always tend to go out in some form of expression.

If these ideas are not permitted to go out into motor action, the nervous force so checked must find expression within the bodily organism, must flow off from brain and nerves into the muscles, the circulation, the respiration, the digestive organs; and this is an inner response to the stimulus. If the ideas are allowed expression in outward action, then the motor areas of the cortex and the motor nerves must be brought into use. Such an action is an outward response to the stimulus. Thus learning can always be expressed in the double terms of brain exercise and mental activity.

That all mental activity is accompanied by nervous changes is a familiar idea, but that mental states are reflected in the muscles and that they influence all the vital operations of the body is not so well known. It is also true that our states of mind are exalted or depressed by purely physical conditions. There seems to be a more or less complete parallelism between mental phenomena and physical states, and this parallelism is more marked in children than in adults. Translated into physiological terms, the child's ceaseless activity is the result of abundant nutrition and rapid growth. He is excitable, suggestible, impulsive, superficial because his ideas always tend to go out into motor expression and he has little power of reflection, deliberation, or inhibition. He is pretty much the slave of his instincts, his physical environment, and bodily feelings, and it is the purpose of education to set him free. He acquires new ideas with marvellous facility, because his nervous system is plastic. Moreover, every impression made on a brain cell changes its structure and leaves a tendency in the cell to react in the same way again, and this is the physical basis of memory and habit. All the outside impressions and influences affecting the child's

growth as an organism are expressed by the term environment; while from within are the complex influences of race, called heredity. Any serious lack or defects in the early environment of the child will leave areas in the cortex undeveloped or wrongly developed, and either of these results will always remain a hindrance to the child's mental growth. A many-sided interest leading to a wide range of physical activities is requisite to arouse into action all the cells of the cortex, and the whole course of study and the entire process of education and teaching must be carefully planned and adapted to meet the needs of the child's successively ripening instincts and budding powers as they awaken into life under the influence of heredity.

To arouse an interest in school work has always been a difficult task. The physical effects of interest are increased blood supply to the brain and a quickened pulse. It is through the child's leading interests that the teacher may discover the real growing point in the child's mind, for entirely new objects have little power to awaken interest and old objects have lost their charm.

To understand these physical factors and nervous changes that condition all education, to be familiar with the road through which we must reach the child's mind, to take advantage of the child's ripening powers and interests and to see how to supply the right stimuli at the right time, to guard the pupil against fatigue and waste of energy, and to enable him to do his school work under the best possible physical conditions—all these are vitally connected with the nature and success of the teaching process.

(2) *The Contents of the Child's Mind.*—The contents of the pupil's mind are the accumulated results of his past experiences; that is, the effects of the use of his powers of body and mind. The systematic study of this mental

content as manifested in the average adult person is the science of general psychology. There are many departments of psychology, depending upon the method of study or the special field of research selected for investigation; hence we have the terms introspective psychology; genetic and race psychology; experimental, animal, physiological, abnormal, individual, and social psychology. But the teacher's chief concern is obviously in those departments of psychology that deal with the growing mind of the child and the laws that must shape its proper unfolding, for upon these laws the science of teaching must be based. It is impossible to discuss the nature of the teaching process intelligently without constant reference to the fact that the child mind is a growing, developing mind and that there are certain laws that control or modify such growth.

A brief statement of the child's mental development, expressed in the ordinary psychological terms, will give us the basis for the proper understanding of the fundamental laws that govern the teaching process.

(*a*) *Sensations.*—The power that the mind has to receive impressions from the material world through the senses is called sensation. A state of consciousness produced by the action of any stimulus upon a sensory nerve is called a sensation. Sensations are what Pestalozzi called "passive sense-impressions" as distinguished from "active sense-impressions," or percepts. They are the simplest states of consciousness and constitute the foundations of all knowledge; or, as Comenius puts it, "There is nothing in the intellect which has not first been in the senses."

There are four factors in the production of a sensation: (1) A stimulus; (2) a sensory nerve to carry the impression made by the stimulus to the brain cells; (3) a con-

scious mind; (4) a change in the conscious mind. Some force is required to overcome the inertia of the nerves and brain cells, and the point at which the mind can just begin to distinguish the sensation is called the threshold of sensation.

Sensations differ greatly as to their quality, intensity, and duration and these differences furnish the materials for the fundamental intellectual operations of comparison, discrimination, selection, assimilation, and association. Owing to the fact that sensations always have tone, or the element of pleasure or pain, they form the basis of feeling and emotion. Thus the materials upon which the mind works come to it through the senses. Our percepts, our memory images, our concepts, our beliefs and opinions are all based upon this material.

(*b*) *Percepts.*—A percept is the consciousness of any object as occupying space, possessing certain qualities, and actually present to the senses. The manifold objects of the external world crowd upon our senses, giving rise to countless sensations; we attend to some of these, compare them, note their likeness or difference to former sensations we have had, and infer that they are caused by certain stimuli. This process is called the interpretation of sensations. The mental act is perceiving; the power of the mind to act in this way is called perception; the result in consciousness of the act is called a percept. Percepts constitute real knowledge of individual objects. The word "object" here means any individual thing present to the senses, any single fact, date, event, relation, or quality. Percepts are also called individual notions or concrete notions.

As to their nature, percepts are vivid mental pictures dependent upon external objects, their qualities and relations; they are transitory states of mind, coming and going

rapidly with our constantly changing environment; they are largely independent of the will in their origin; they are simple when derived through one sense only, and complex when they are the result of the combined action of two or more senses; and they are the basis of all memory images. In forming percepts the mind is by no means passive. Objects are not simply stamped on the mind as a seal is stamped on wax. The same object may appear very different to two individuals or to the same person at different times. New impressions are interpreted by means of old ones, and thus every new percept is changed and colored by the contents of the mind. From these considerations it is plain that we cannot tell how any new object will appeal to a child or be interpreted by him unless we know something of his previous experiences. Very many of these experiences survive in the mind as memory images.

(*c*) *Memory Images.*—"A memory image," says Locke, "is a revived percept only less vivid." Remembering is a complex act of the mind, for it involves (1) retention, (2) reproduction or recollection, and (3) recognition. The impressions made upon the brain cells in the act of receiving sensations modify these cells, and these modifications tend to become permanent. This is the physical basis of memory and is called retention. The power of the will to cause these brain cells, without the aid of any physical stimulus, to work again as they worked in the act of sensation and perception, and thus call back a former experience, is called reproduction or recollection. The power of the mind to know this experience as an actual and personal one and refer it to a definite time and place is called recognition. Thus memory is the mind's power to retain, reproduce, and recognize any past experience and refer it to a definite time and place. Memory images are

independent of external objects. In perception actual material stimuli are presented to the senses. In remembering, these stimuli are represented in the mind in the form of memory images. Perception gives us command of the present; memory makes us master of the past.

From earliest infancy the child has been accumulating experiences of every kind—experiences of taste, smell, touch, muscular movements, hearing, and sight. Memory forms images of these experiences. As soon as he acquires spoken language he learns to call these experiences by certain names. These images of past experiences with the names for the same constitute the child's stock of knowledge, or the contents of his mind. Thus memory renders the child less and less the slave of the objective world. In the place of actual sensations and percepts he substitutes memory images and thus saves times and energy. Moreover, these images of past experiences tend to arrange themselves in definite and related groups based on some thought relation. These types, or groups, of images are arranged in such a way that any one image of a group tends to suggest the others. These groups of associated images are sometimes called apperception masses. They seem to have the power of reaching out, as it were, to meet any new related images or ideas that enter consciousness and of assimilating them, thus making a constantly richer and more complex mental content. This process constitutes growth in knowledge.

(*d*) *Images of Imagination.*—As we have seen, a memory image is one which serves as a symbol of actual previous experiences. These images are so nearly a literal reproduction of such experiences that the mind easily recognizes them as based on reality. But the mind also has the power of modifying these images in many different ways. It may

think of them (1) as dissociated, or separated into parts, or changed in time or space; (2) as enlarged or diminished; (3) as simply combined, without change, with other images or parts of images; (4) or the mind may select certain parts or elements of images, change them to fit some definite plan, and out of these parts, so changed, construct a new image. Imagination is the power of the mind to dissociate the elements of past experiences and recombine them into new forms. Imagination may be simple or complex, mechanical or constructive, dissociative or associative. In its complex form it involves memory, comparison, abstraction, judgment, and will. All its materials are based on sense-perceptions. It creates nothing. Yet through this magic power of the mind the child, under a skilful teacher, is able to modify his percepts and memory images in such wondrous fashion as to build up vivid pictures of mountains and oceans that he has never seen, of distant places that he has never visited, of important events of past centuries, of the operation of invisible forces and laws, and of the ideals to which he aspires; and these images of the imagination, these children of fancy, these ideals of excellence and nobility may become the most potent forces in shaping his character.

(*e*) *Concepts.*—A concept, or general notion, is the sum of all the qualities common to a class. Concepts cannot be imaged, for an image must contain the individual qualities of an object, whereas a concept must contain only those qualities that are common to the whole class. Concepts are not fixed and constant, but are always in process of expansion and development. Very young children form concepts, but these are comparatively crude. To change these crude, imperfect concepts into logical, exact, complete concepts is the chief business of education and ex-

perience. This is the great truth which Pestalozzi so reiterates in "How Gertrude Teaches Her Children." To him clear ideas are the goal of all instruction. Reading, writing, numbers, drawing were only means by which the pupil's knowledge "should grow from confusion to definiteness; from definiteness to plainness; and from plainness to perfect clearness." This progress to clear ideas is not a steady, unbroken one. It is an irregular growth out of mental confusion and uncertainty into clearness and certainty. At times there seems to be no progress whatever; then there is a period of rapid growth.

The psychology of the teaching process must deal constantly with the manner in which clear concepts are formed. The formation of a concept always implies thought, but the thought process need not be a continuous one. From earliest infancy children are close and constant observers. They compare, examine, note likenesses and differences, sift out qualities, and, in a crude way, classify and define objects. Long before they enter the school, children have learned to put certain objects into the class horse and certain other objects into the class flower or house or good. They have learned that some things will burn, that some things creep or fly or run. The processes of observing, comparing, classifying are as natural to children as playing or running, and are usually unconscious processes. Thus in his out-of-school experiences the child's concepts are formed bit by bit, through repeated acts of observation and comparison. But in the school, under the direction of the teacher, concepts should be reached by more continuous and systematic thinking.

This mode of thinking is called induction. Induction is thinking from sensations and percepts to concepts. It begins with the observation of individual cases, facts,

objects, relations, and by means of comparison, abstraction, and generalization reaches up to a general principle, truth, class, or law. The reverse of this process of thinking is called deduction. It is clear that all inductive thinking must be based on actual personal experience, observation, and experiment. If all the individuals in a class are examined in making an induction, the conclusion is called a perfect induction. If only a few individuals are examined, and some logical reason is discovered why all other objects of the class must possess a certain quality, the induction is called imperfect; but if no such logical reason is discovered, the induction formed would be a hasty induction and would not be trustworthy or valid. As De Garmo says, "If we infer too much, we think we perceive what is not true; if we infer too little, we are of those who, having eyes, see not." The steps in thinking the concept, as the inductive process is called, and their relation to teaching require explanation.

First Step, Observation.—Bain says, "Observation is sense-impression plus inference." In the observation of objects, qualities, and processes in school work the pupil employs the same powers of sensation, perception, and inference that he uses out of school, but he uses them in a different way. Under skilful teaching he observes more carefully and he examines more minutely. The school limits the range of the child's observation, but what he loses in extent he gains in clearness and depth of impression. By attending to fewer things he gains in power of attention. There is a great deal of truth in the statement that we can neither know nor touch nor see except as we have been trained to know and touch and see. It is one of the great ends of school training to transform the spontaneous, careless, almost unconscious observation natural to chil-

dren into the close, persistent, exact, and systematic observation of the trained student or scientist. The materials at the teacher's command for training pupils in observation are abundant and varied. They include all the natural environment of the school, the soils, rocks, and strata; the changing seasons, clouds, winds, fogs, rain, and snow; the varying appearance and position of the sun, moon, planets, and stars; the trees and plants, their kinds, growth, flowers, fruits, and various uses; animals, as to their size, habits, form, color, instincts, movements, food, enemies, and uses. And in addition to all these, there are the materials that may be drawn from the pupil's social environment, the persons whom he meets, their occupations, interests, classes, dress, customs, institutions. And yet with all this wealth of material close at hand, teachers too often fail to make use of it. They attempt the impossible by trying to teach concepts in the form of definitions and rules as mere abstractions, without any sure foundations of actual experience and observation on the part of the pupil. "To exercise the senses carefully in discriminating the differences of natural objects is to lay the foundation of all wisdom, all eloquence, and of all good and prudent action. The right instruction of youth does not consist in cramming them with a mass of words, phrases, sentences, and opinions collected from authors. . . . Not the shadows of things; but the things themselves, which make an impression upon the senses and imagination, are to be brought before the youth."

Second Step, Comparison.—Comparison always implies two objects or ideas to be compared, and the purpose of comparison is to discover the likenesses and differences between these objects or ideas. Some of these likenesses and differences lie on the surface and are easily discovered,

others are not at first apparent and must be sought for diligently. Some are unimportant, others are essential. Children very early acquire great facility in discovering resemblances among the people and objects that surround them. They soon come to understand what constitutes a horse or a chair or a cat or any other familiar object. In school work this process of comparison must be stimulated and directed, for it forms the basis of clear and accurate conception. Only by the constant exercise of comparison can children form a proper concept of Washington, Lincoln, Arnold, and Nathan Hale, or form any adequate notion of such terms as ocean, hill, valley, desert, fraction, quotient, phrase, sentence, etc.

Third Step, Abstraction.—In the process of comparison the mind notes certain qualities of the things compared, as color, form, size, weight, structure, materials, arrangement, and use. Some of these are seen to be necessary to the very nature of the things compared, and therefore are called essential qualities. Other qualities, not common to all the objects compared nor necessary to their existence, are seen to be non-essential qualities. The mental act of selecting or picking out the common and essential qualities of an object and rejecting the non-essential ones is called abstraction. Thus the child compares the animals that he sees, notes their form, size, color, and habits. He observes that some walk or run, that others fly or swim or crawl. He discovers that some of them live in holes, others in nests; that some are covered with hair, others with fur, feathers, scales, or shells. He learns that some of them are tame, others are wild; some are useful to man, others are regarded as enemies. All these facts must be compared, elaborated, connected by the learner. Gradually the common and essential qualities of all these differ-

ent animals are sifted out from the great number and variety of qualities, and these essential qualities form the basis of the crowning act in the inductive process; that is, generalization.

Fourth Step, Generalization.—By generalization we mean the mental act by which the learner forms a class, or head, including all objects that possess certain common and essential qualities. In observation, comparison, and abstraction the mind deals with a limited number of individual objects and their qualities and sifts out some quality or qualities which are common to them all; but in generalization the mind classifies under one head not only all the objects so far examined that possess the common quality or qualities but also all other objects possessing such quality or group of qualities. Thus the number of objects in a class becomes indefinite. In the act of generalization the mind shakes off the ordinary limitations of time and space and number and forms a universal or general notion. This general notion is called a concept. It includes an indefinite number of objects but a definite number of qualities. When expressed in language these general notions, or concepts, take the form of words, definitions, laws, principles, rules, maxims, proverbs. These concepts are the aim, or goal, in all inductive teaching; and their skilful and ready use is the aim of deductive instruction. They are the means by which new ideas and experiences are assimilated. Without these our knowledge could not be classified, nor could we form any conclusion that would be valid beyond the limited range of our own personal experience.

Thus through his own personal experience, supplemented by the systematic instruction of the school, the pupil rises step by step out of the confusion and indefinite-

ness of sense-impressions into the realm of clear and precise ideas. As Pestalozzi says: "The world lies before our eyes like a sea of confused sense-impressions flowing into one another. If our development through nature only is not sufficiently rapid and unimpeded, the business of instruction is to remove the confusion of these sense-impressions; to separate the objects one from another; to put together in imagination those that resemble or are related to each other, and in this way to make all clear to us, and by perfect clearness in these to raise in us distinct ideas." At first the child's concepts are crude, imperfect, inaccurate. Such concepts are called psychical, or crude, concepts. Little by little through the constant repetition of the mental processes of observation, comparison, and generalization, described above, these crude and imperfect concepts grow in accuracy, clearness, and definiteness until they include all the common and essential qualities of the class and no other qualities. Such concepts are called logical concepts. Now text-books contain these logical, complete concepts in the form of definitions, rules, laws, principles, and children are too often set to learning them from the book. That this method of procedure is utterly stupid, unnatural, and unpsychological any one who has read the preceding discussion can understand.

(3) *The Factors of Feeling and Will.*—We have now completed our brief survey of the child's mental capital and the processes by which it is acquired. It has been shown that sensations, percepts, memory images, images of the imagination, and concepts constitute the materials with which the teacher must work in the teaching process, and the mental acts through which the child accumulates these materials have been indicated. But the child is not all intellect. He possesses feeling and will, and these

powers must be reckoned with in teaching. Indeed, these factors of feeling and volition are so important that no teacher who ignores them can be successful. Thoughtful teachers, even with no professional training whatever, very soon discover through experience the immense importance of the three words, study, interest, and attention as related to effective school work. But it would seem that some professionally trained teachers fail to realize that study is thinking, or the exercise of the intellect; that interest is feeling; and that attention is will. Now the mind is not a hydra-headed thing. Thinking, feeling, willing are not separate, independent powers, or functions, of the mind. They are all present, in different relative proportions, in every mental act. Each deliberate act of the child, each mental image, each idea has its thought side, its emotional side, its volitional side. Intellect is the discriminating and assimilating power of the mind; a feeling or an emotion is the pleasurable or painful side of any mental state; will originates in the tendency of an idea or an image to go out into action. Feeling inspires and stimulates thought and action; will guides, sustains, and controls them.

Feeling, in the form of interest, must enter into every step of the teaching-learning process. To the real teacher the pupil's interest in the subject of the lesson is a vital consideration. This interest may be direct or indirect. Direct interest is that interest which the pupil has in a subject for its own sake, its own attractiveness. Indirect interest is simply a means to an end. Interest is transitory, lasting only for the time being, or permanent. Transitory interest may be almost valueless as to its influence upon character; permanent interest, on the other hand, is vitally related to growth in character.

Herbart points out two sources of interest, nature and

society. When interest is directed toward nature it may be of three kinds, empirical, speculative, and æsthetic. There are also three kinds of interest that grow out of the pupil's relation to society; these are sympathetic interest, social interest, and religious interest. In view of the fact that every teacher has all these sources of interest at his command, Mr. Quick says: "I would go so far as to lay it down as a rule that whenever children are inattentive and apparently take no interest in a lesson, the teacher should always look to himself for the reason." This much, at least, may be safely affirmed; the school work of the student will be of very little benefit to him unless he is actively interested in his lessons. And when such interest is lacking, it is the teacher's first duty to seek for the cause of such lack of interest and do his very best to remove it. The cause may be in the pupil, the teacher, the subject, the home, or the outside influences surrounding the pupil.

Again, it must be noted that not one step of the teaching process can be successfully accomplished unless the pupil's will is taken into account. How to capture the pupil's will is the teacher's greatest problem in the recitation. This is the problem of attention. Voluntary attention is consciousness directed toward some specific object or idea. Without the attention of the class the teaching process breaks down utterly. And this attention cannot be a forced, grudging attention; it must be free, spontaneous, eager, persistent. Here the teacher must employ all his skill in method, all his expedients and devices in illustration, all his powers of persuasion, all his knowledge of the child's instincts, motives, and interests. A little reflection will convince the teacher that in order to secure and hold the attention of the pupils to the lesson in hand they must have some definite and immediate end or aim in view

and that the attainment of this aim must appeal to them as worth while and must be within the range of their powers. The teacher must also realize that the three factors in attention are (1) the physical condition of the pupil; (2) the kind and the amount of the stimulus; (3) the relation of the stimulus to the child's instincts and acquired interests. Teachers should not expect pupils to give prolonged attention to an uninteresting subject or to an unvarying stimulus. They should not expect attention where there is no sufficient incentive. They must make due allowance for fatigue and must seek to vary the work of the recitation by introducing appropriate forms of motor expression.

Summary.—In this discussion of the nature of the teaching process it has been shown that most definitions of teaching fail to give an adequate conception of the process; that true teaching cannot be mechanical; that in the teaching process the teacher must deal with the whole child, his nervous system, his instincts and acquired interests, the contents of his mind, his feelings, and will.

Some Important Inferences.—(1) If the teacher is to be anything more than a "mere hearer of lessons," he must, in the act of instruction, be able to follow the pupil's mental processes in acquiring any certain kind of knowledge. Such knowledge on the teacher's part is by no means impossible, for, notwithstanding the great complexity and variety of the pupil's mental processes, there are two, and only two, great types of thinking, and these two types of thinking serve to explain what goes on in the mind of the child in the act of learning. Induction and deduction are the common names for these two types of thinking. Inductive thinking, as we have shown, is thinking from percepts, individual notions, particular cases, concrete data,

specific facts, qualities or relations to concepts, definitions, laws, rules, principles, or general classes. Deductive thinking is the reverse of inductive thinking. Both of these types of thinking are equally natural and equally important in the teaching process. Every child thinks both inductively and deductively in all stages of his development. Now it is a comparatively easy thing for the teacher to follow these two fundamental processes in the child's act of learning. The pupil is not conscious of the mental processes involved in an act of learning; he is conscious of the lesson only and the external means of instruction used by the teacher. But the teacher is already familiar with the subject-matter and is free to think of the pupil's mental processes in the act of learning. Moreover, the teacher can determine beforehand from the nature of the subject-matter of the lesson and his knowledge of the nature of the pupils' thinking whether they must think inductively or deductively in the recitation, and thus he can adapt his lesson plans, questions, illustrations, and entire procedure to meet the needs of the pupils. Only in this way can teaching become a simple, natural, rational process.

(2) The recitation is a double process, a thinking together of teacher and pupils. The thinking of the pupils must be vitally related to that of the teacher; each must match, so to speak, or dovetail with the other. Nothing should be permitted to interfere with this double process of thought. "The stream of thought," to use a favorite expression of Dr. James, should flow on uninterruptedly during the recitation, gathering force and momentum at every stage.

(3) All the powers of the child should be appealed to in the process of teaching—interest, attention, perception, memory, oral expression, imagination, comparison, infer-

ence, motor activity—all these should be called into constant play in the recitation. Every such recitation becomes a means in attaining the great end of education as stated by Pestalozzi, "the complete and harmonious development of all the powers of the child."

(4) Every step in the recitation involves certain fundamental laws of teaching, and the method of teaching and all the devices used to make the method effective must be governed by these laws. Some of these laws will be stated in the following chapter.

SUGGESTED READINGS

Hall, "The Contents of Children's Minds on Entering School"; Gordy, "A Broader Elementary Education," chaps. X to XIV, inclusive; Thorndike, "Principles of Teaching," chaps. I, X, XI; Bagley, "Classroom Management," chaps. IX, X; Pestalozzi, "How Gertrude Teaches Her Children"; Horne, "Psychological Principles of Education," chaps. V, IX, XXII, XXVIII; Tompkins, "The Philosophy of Teaching," pp. 1–35 and 115–246; McMurry, "General Method," chap. VI; Hinsdale, "Art of Study," chaps. XII, XIII; Roark, "Method in Education," chap. II; Compayré, "Psychology Applied to Education," chaps. III to VII, inclusive, and chap. XV; Halleck, "Psychology," chaps. I, III, V, VII, VIII; Thompson, "Brain and Personality," chap. VIII; Angell, "Psychology," chaps. XV, XVI.

CHAPTER XVI

SOME LAWS OF TEACHING

That there are laws of teaching must be admitted by all who believe in a science of education. It is hardly rational to assume that all the efforts of the great educators of the past centuries have been utterly fruitless and that we have nothing to learn from their experience. It is by no means claimed that all the laws of teaching have been discovered. Only a few of them have been formulated. Others are in process of formulation. Still there are some laws of teaching, even with our imperfect knowledge of psychology, which are founded upon a solid basis. These laws the teacher should know and apply.

I. **The Law of Sense-perception.**—"There is nothing in the mind that has not first been in the senses."

This is the statement of Comenius, the disciple of Bacon, and it was in following out this principle that he wrote his famous "Orbis Pictus," the first text-book containing pictures. In his course of study for elementary schools he included measuring and weighing, music, drawing, experimental physics, geography, the arts and handicrafts. He would furnish occupation for the hands of the learner as well as the mind. He thought that the hands and the senses are the child's first teachers. These same principles have been emphasized by Rousseau, Pestalozzi, and Froebel, but they have won ground very slowly in their application to the actual work of the schools. It is so

much easier to assign lessons by pages to be memorized from the text-books than it is to plan work for the exercise of the senses and the judgment, so much easier to be a mere taskmaster than a trainer, that teachers, even those who know better, fall into the habits of mere verbalism and formalism against which the great reformers in education have so strenuously contended.

And yet it is becoming more apparent every year that all educative influences must affect the mind by means of the body. The senses, as Bunyan so beautifully put it, are the real gateways to the soul. The better one's senses are trained the fuller and richer are the materials for the structure of his mental life; for without vivid and varied sense-perceptions there can be no clear and accurate memory images, no sure basis for constructive imagination, and no certainty of judgment and inference. "Opening the windows of consciousness" for the pupil is the teacher's first vital task in instruction.

II. **The Law of Motor Reaction.**—Every sensory stimulus that affects the child's consciousness suggests some mental state, or idea, and this mental state, or idea, tends to go out into motor action.

There is a motor element in every distinct image, idea, or emotion. Impression always suggests expression. That a sensory stimulus tends to produce an appropriate muscular response is a law that applies to the cortex as well as to the spinal cord. In the case of the spinal cord, however, the response is immediate and is called a reflex act or an instinctive act. But the tendency of an image or an idea to go out into motor action may be restrained or inhibited by an effort of will.

It is a well-known fact that every emotion has its characteristic form of physical expression. Anger, fear, hope,

joy, hate, all have their familiar signs. Even where the tendency of an idea or emotion to go out into its appropriate physical expression is checked or outwardly suppressed, the effects of such a check or suppression are felt in all the bodily organs—mirrored in the face and muscles, revealed in the deeper breathing and the quickened heart-beat.

This law makes it obligatory upon the teacher to remove all disturbing stimuli from the school-room and to avoid every unpleasant or irritating suggestion; for anger, fear, and dislike, either given vent or suppressed, are a fearful drain upon the vital powers of both teacher and pupils. This law also makes clear the great importance of providing appropriate and abundant means of physical expression in the work of the school, especially in the lower grades, for the attempt to express an idea is the surest and best method of making that idea clear, distinct, and a permanent possession. It would seem that ideas must be expressed in some form of motor activity in order to become clear and definite. From this it will be seen that the chief value of painting, drawing, modelling, and manual training in the schools is not to make artists or mechanics of the pupils, but that these modes of expressing ideas through physical action form the only possible basis of clear thinking and rational education.

It should not be forgotten, however, that children from the first are to be taught to check and restrain motor impulses which ought not to be expressed. Social customs, decency, politeness, and the requirements of the school all make it imperative that children should not permit every impulse, idea, and emotion to find expression. At first the child is the slave of his emotions and feelings, has very little power of restraint, and does not understand the reasons why he may not cry or fly into a passion; but little

by little he must be taught the customs and conventions of civilized society, taught to inhibit undesirable impulses, suppress selfish emotions, and refrain from unbecoming actions. This power of self-control, of daily subordinating the lower to the higher self, of enthroning reason and conscience in the life is the most precious training that the school can give.

III. **The Law of Apperception.**—New experiences of every kind are interpreted and assimilated only by means of old experiences.

Apperception is the combining and relating activity of the mind. It is the common element in perception, representation, conception, and reasoning. It involves retention, comparison, and constructive imagination.

Through apperception the mind combines all the different sensations derived through touching, seeing, smelling, and testing a peach or an apple into one percept. Through apperception the mind unites the different percepts of trees, houses, hills, and valleys into one complete image of a landscape. Through apperception the mind groups related ideas into one cluster or collection called an apperceptive mass, and these clusters of ideas are being constantly enlarged and enriched and made more perfect by the addition of new ideas. And, lastly, the mind through its apperceptive activity brings into unity and harmony all these various groups or masses of knowledge, correlates all our acquisitions in science, history, art, literature, and the ordinary affairs of life, and forms the mental content that characterizes us as individuals. Thus, as Baldwin says, "This combining of all the items or groups of items into ever larger and more fruitful combinations is the one typical way the mind has of acting."

It will very readily be seen that this great law of apper-

ception applies to the teaching of all subjects, and that little or no progress can be made in teaching any lesson unless the teacher conforms to this law. Moreover, the laws of the association of ideas grow out of the law of apperception. These laws are based on the fact that when any ideas have been apperceived by the mind as related in time, space, resemblance, difference, whole and parts, identity, cause and effect, design, etc., any one of them will tend to suggest the others. Facts that are thus firmly welded together become the permanent possession of the mind, and the great function of the teacher as an instructor is to assist the pupil to establish these logical and lasting relations among the ideas acquired. A few suggestions for applying this law may not be out of place.

(1) The starting-point in every lesson must be within the range of the pupil's knowledge and his previous experiences. Unless the teacher complies with this requirement, there is no real contact between the lesson and the pupil's mind, and failure is a foregone conclusion. The teacher must begin his instruction where he finds the pupil and must think with him, otherwise there can be no progressive development of the ideas of the lesson; for the child cannot make images unless he has first acquired the necessary raw materials through sensation and perception.

(2) The individual members of the class will receive very different impressions from the same lesson. Just as the same oak-tree may call up very different images in the mind of a hunter, a lumberman, and an artist, so may the same lesson call up very dissimilar images in the minds of the pupils that compose the class. Each pupil will see in the lesson pretty much what he brings to it. He will interpret it in terms of his past experience. The teacher must know something of the contents of the pupil's mind,

must know something of his previous experiences, before he can foretell the effect of the lesson or judge how it will be apperceived by him. What each particular pupil thinks or feels or wills during any lesson will depend on his past thoughts, feelings, and actions.

In a certain reading class the lesson for the day was the poem, "Woodman, Spare That Tree." The teacher called on one little boy to read the lines:

> "'Twas here my sisters played,
> My mother kissed me here."

The little fellow shook his head and sat still. The teacher insisted, commanded. At last he rose, began the lines falteringly, broke down, and sobbed. Not until one of the other children told the teacher that the boy's mother had died only a few weeks before school began did she understand his seeming stubbornness.

(3) The teacher should strive to present the ideas contained in the lesson in organic relation to each other, not as a mass of disconnected facts. As we have stated, facts connected by means of thought relations are easily associated together in the mind, and will afterward tend to suggest each other. But the pupil must apperceive these relations, be fully conscious that they exist, and understand their connection with his old knowledge and former experiences.

(4) The law of apperception reveals to the teacher the immense value of the child's previous experiences, especially his out-of-school experiences, as a factor in instruction, as well as the importance of a thorough mastery of essentials by the constant application of definitions and rules to new cases. The old knowledge of the child should

never be permitted to become "dead knowledge," but should be kept alive through constant use in acquiring new knowledge. In this way the old knowledge of the pupil is worked over, revived, enlarged, enriched, completely mastered.

(5) The law of apperception explains many of the well-known educational maxims, such as "from the known to the unknown," "from the empirical to the rational," "from the simple to the complex," "from the concrete to the abstract." These maxims should not be regarded as universal laws of teaching.

IV. **The Law of Self-activity.**—The right unfolding of the mind is possible only through its own activity and under proper conditions.

Exercise is the law of growth, but the proper kind and amount of exercise is essential to the right kind of growth. Organs are modified by function and disuse causes atrophy. Therefore the mental and moral unfolding of the child needs intelligent direction. It is the business of the home and the school to give such direction. But the child can never be a passive partner in his own development. Before the school age the child learns to talk, to use his hands, to walk, and a hundred other things, urged on by his natural self-activity and his instinct to imitate those about him. This persistent imitation always involves will and some form of expression and is the beginning of education. At first the child imitates only the external act of another, but very soon he makes the act his own, gets hold of the purpose of the action and the motives of the actor. Thus from being an imitator he becomes an originator, a creator. This desire to create, this self-activity, leads the child to the constant exercise of his powers both physical and mental. He has a restless eagerness to touch, to

examine, to pull apart, and to change everything about him. He uses his senses, his hands, his legs, his voice constantly, and in this way acquires ideas with marvellous facility. Now why should this natural mode of acquiring ideas be changed as soon as he enters school? Why should this natural method of learning be replaced by the stupid process to which he is subjected in the average school? Why should it be thought necessary to make him sit still, keep quiet, and become a mere passive recipient of ideas which in some mysterious manner the words of the teacher or the text-book are supposed to impart? Telling a boy how to move his hands and feet in swimming is not teaching him to swim. The teacher cannot see or hear or remember for his pupils. Only as they actively participate in the act of instruction do children really learn. The teacher can suggest the aim, plan the work, select the materials for the lesson, supply the motives, furnish the data for inferences, but learning must be the result of the pupil's own activity. Thinking is an individual process not a class affair. Real study is not a partnership concern. Knowledge is neither imparted nor absorbed through words without ideas, but knowledge, skill, and self-reliance are the result of the pupil's own self-activity wisely directed. The loquacious teacher is a mind-killer.

The law of self-activity consistently applied in the education of the pupil makes him an independent and a willing worker, guarantees vividness and permanency to knowledge, creates enthusiasm for learning, cultivates courage in mastering difficulties, and prevents school life and school work from degenerating into hateful tasks imposed by the arbitrary authority of the teacher.

V. **The Law of Aim.**—Unless both teacher and learner are conscious of a definite aim, continuous co-operation

in the process of instruction cannot be secured. Or, in shorter form, no aim, no will; and no will, no work.

This law applies to the study of a lesson as well as to the recitation.

The value of having a definite aim is revealed in every step of the teaching process. It serves as the welding-point of the effort of teacher and pupils, and makes it possible for them to become co-workers. The pleasure of learning grows out of the consciousness of achievement, and every specific aim realized by the pupil is transformed into power to accomplish higher and more difficult things.

The aim of the lesson must appeal to those ideas already acquired by the pupil with which the new ideas of the lesson can be most readily associated. These old ideas are the source of the pupil's interest in the new lesson, and hence become his motives to self-activity. The pupil must see from the first what the aim of the lesson is if he is to use all his powers freely and vigorously in the effort to reach that aim. So the teacher must not only have a specific aim himself in the recitation, but must also succeed in having the pupil set up the same aim in his own mind, for without a clearly defined aim there is no will, no interest, no self-activity.

Here the skill and effort required of the teacher will depend very much upon the nature of the subject. I recently asked one hundred and seventy-five students to write the name of their favorite study before they had entered the high-school. Seventy per cent. of them named arithmetic. The reasons given in most cases could be reduced to these two: (1) they could see what they wanted to do; (2) they knew when they had done it. Of course this second reason meant in many cases that they knew when they had obtained the answer in the book after re-

peated blundering attempts. But the simple facts that in each problem in arithmetic a specific, definite aim can be set up to guide mental effort and that this mental effort can be re-enforced by the motor activity of the hand which records on slate or tablet the successive steps in the thinking process, explain why so many pupils will work more persistently on arithmetic than on any other study.

That teacher who is careful to have a definite aim, who realizes that no mere statement of the aim of the lesson will suffice to fix that aim in the pupil's mind, who through skilful questioning, guided by the laws of association, calls up in the pupil's consciousness those images and ideas most nearly related to the new ideas to be taught, may rest assured that much of his activity, his energy, his effort deserves the name of "work."

Without such an aim the teacher's method must be as indefinite as that of a certain old Scotch professor of theology who, when asked how he treated his subject, replied: "I just begin with infinity and go right on."

And without such a clear and definite aim in his mind the pupil will not be able to prevent his mind from wandering from the work in hand.

VI. **The Law of Induction.**—In the earlier stages of learning, inductive thinking must precede deductive thinking.

The reasons for this law have been given in the preceding chapter, where the steps in thinking the concept were discussed. Whenever the goal, or aim, of the lesson is a concept, definition, law, rule, or general principle, the thinking of the pupil must proceed inductively. But to assume that all lessons, even in primary classes, can be taught inductively is a fundamental pedagogical error. Many such lessons must consist of memory work, pure and

simple. Inductive thinking begins with objects, specific cases, concrete data, individual notions, and through comparison and abstraction reaches a general conclusion or truth; but this process cannot be a continuous, unbroken inductive process. The child does not attain general truths and laws at one great stride of thought. He gets a very imperfect concept of a class at first, only a glimpse of the truth or law, and must wait for further experience to perfect his knowledge. His first inductions are only partial generalizations. But he must not wait to act until he fully understands the law or completely masters the principle. He must act on his imperfect knowledge and test his conclusions by applying them. Thus through deductive thinking he is constantly testing and supplementing his imperfect concepts and partial generalizations acquired through induction. This will appear more clearly in the discussion of the next law.

VII. **The Law of Deduction.**—Inferences reached through inductive thinking must be applied to new cases before they can be thoroughly understood or produce any permanent effect upon the character.

It is the function of induction to furnish the mind with logical concepts in the form of definitions, rules, and principles; the function of deduction is to apply these laws and principles to new cases, to the forecasting of results, to anticipating the effects of known causes.

We have pointed out the fact that concepts are of two kinds: (1) crude and imperfect, (2) logical, and that it is a mistake to suppose that children must wait until they attain logical concepts before they can reason deductively. Children delight to apply their knowledge as fast as they acquire it. When a boy one year and a half old first saw a tiger in a cage, he clapped his hands, crying out, "See,

papa, big kitty." He was thinking deductively. It is the very nature of the child to make the facts and inferences which he has already acquired the premises for further conclusions. He turns his knowledge to account as fast as he acquires it. In fact, his strongest motive for acquiring knowledge is to use it and to use it immediately. This tendency should be encouraged, not thwarted, by the teacher. Only in this way does knowledge acquired become a means of training in skill and efficiency. One of the most common and pernicious practices of the schoolroom is to treat the concepts, definitions, and rules acquired by the pupils at great cost of time and effort as so much material to be stored away in the mind for use at some remote future time. Not knowledge, but the ready and skilful use of knowledge, is power. As Dr. Dewey says, "Education is not preparation for life merely; it is life." Knowing and doing are too often widely separated. That conduct and profession so often contradict each other is one of the greatest evils in our American life. The true test of character is found in the application of one's knowledge to the affairs of daily life. To apply knowledge properly as fast as it is acquired is, then, one of the most important habits that school training can give to the pupil.

VIII. **The Law of Interest and Attention.**—The greater the interest and attention of the pupil when ideas are first conceived, the more vivid and permanent will be the knowledge gained and the less need will there be of repetition.

Interest is feeling and attention represents the will. No lesson can be made vital and effective in the child's life or exert any strong influence upon his growth and character that does not enlist his feelings and capture his will. In fact, some degree of interest and attention is necessary on the part of the pupil to secure the merest husks of

knowledge from the text-book or the lesson, so that teachers are under the necessity of either compelling a show of interest and attention by threats and punishments or of buying it with marks and prizes. But how different such interest and attention are from the genuine articles is shown by the extreme facility with which children forget what they have so painfully learned, and by the further fact that what they learn in school has very little effect in shaping their conduct out of school.

Real interest is any form of feeling that arouses the will to voluntary effort. It is the source of motives and incentives. There are habits of feeling as well as habits of acting, and the teacher should strive to form in the pupils correct, many-sided, and permanent interests and emotional habits. The law of apperception makes it clear that all new interests must grow out of old ones. So the great secret of "creating interest" in school work is to discover what interests the pupil has already developed, and then to graft on to his old interests the bud of a new one.

Attention grows out of interest and re-enforces it. The teacher should never lose sight of the fact that the child's susceptibility to stimuli and his power to respond to them vary greatly with his age, the stage of his development, with different days, and with different periods of the same day. The wise teacher will always take account of the amount of nervous energy at the disposal of his pupils, for to make large demands on the interest and attention of pupils who are thoroughly fatigued is to "kick against the pricks."

The effects of concentrating the attention upon any image or idea are: (1) the image or idea grows in vividness, clearness, and definiteness; (2) it increases in

feeling or interest; (3) it gains in motor power or its tendency to go out into action. Thus, such an image or idea becomes a motive to action. From this it is clear that forming the character is, in reality, training the will or, in the last analysis, cultivating the power of voluntary attention and forming habits. This is what Rooper means when he says: "I am not sure that if the teacher's art is to be summed up briefly it may not be described as the art of developing the power of fixing the attention."

IX. **The Law of Habit-forming.**—Every voluntary action produces some modification of the nervous system which persists as a tendency to repeat the act, thus forming the basis of habit, and conscious repetitions of this act result in its automatic performance.

A habit is an acquired reflex act, or series of acts, originally performed by voluntary effort. The physical basis of habit is the plasticity of the matter composing the nervous system. We speak of matter as plastic when it is pliable enough to yield to impressions which gradually change its structure, but stable enough to maintain its organization during the process of change. Such changes are illustrated in the action of a magnet on a piece of iron, in crystallization, and in the hardening of plaster of Paris. Thus the physical basis of habit is exactly the same as that of memory and the association of ideas, for habit is only one phase of the general law that, "All mental experiences occurring together tend afterward to suggest each other." To quote Dr. Carpenter: "Our nervous system grows to the modes in which it has been exercised."

One of the most important functions of the school is to train pupils in the formation of right habits and to safeguard them from bad ones. Success here depends on the foresight, intelligence, watchfulness, patience, and per-

sistence of the teacher. The work of training pupils in right habits is literally one that requires "precept upon precept, line upon line; here a little and there a little." There must be sympathy, but no softness; a steady purpose, but no haste; constant supervision, but no spying; variety in instruction and originality in device, but steady, relentless drill and practice in learning and doing the things in education that must be made automatic.

Dr. James says: "The great thing in all education is to make our nervous system our ally instead of our enemy."

SUGGESTED READINGS

James, "Psychology," chaps. X, XIII; Rooper, "A Pot of Green Feathers"; McMurry, "The Method of the Recitation," chap. IX; "General Method," chap. V; Spencer, "Education," chap. II; Lange, "Apperception"; Seashore, "Elementary Experiments in Psychology," chaps. IX, XII; Quick, "Educational Reformers," pp. 396–413.

[illegible]

[illegible] In our Amer-
[illegible] divided between
[illegible] reciting the
[illegible] almost wholly
[illegible] tendencies have
[illegible]
[illegible] recitation lesson as
[illegible] been exaggerated.
[illegible] lesson as by far the
[illegible] writers give
[illegible] Some
[illegible] discussions.
[illegible] activities are only a
[illegible] deepest interests of
[illegible] recitation the
[illegible] knowledge broad-
[illegible] says: "The
[illegible] to the teacher
[illegible] an opportunity to
[illegible] develop power, to
[illegible] deepen impression, to
[illegible] with a love of
[illegible] habits of thought and
[illegible] opportunity to acquire
[illegible] and to catch glittering
[illegible]

glimpses of the great sunlit valley of truth from the glowing hill-tops of the teacher's inspiration."

(2) The recitation lesson is too often considered a testing process rather than a teaching process. Roark says: "On the part of the pupil, the recitation of the lesson is a reproduction of facts and the expression of thought about them." "A recitation," says Dr. Sabin, "is simply a reproduction of that which the pupil has acquired and retains in his mind." Hinsdale says: "The school definition of 'recitation' is the rehearsal of a lesson by a pupil to his instructor."

(3) Teachers make little or no effort to teach pupils how to study. Children are left to their own devices in studying their lessons, and very many of them never really learn how to attack a lesson. Moreover, many teachers do not realize the great importance of assigning lessons properly, and therefore make no effort to assist pupils by giving them a helpful pre-view of what is to be learned. No wonder that children, under these circumstances, so generally attempt to learn simply the words of the text-book and that teachers content themselves with merely "hearing recitations." Every teacher should realize that the ordinary text-book is nothing but a continuous series of answers.

No less an authority than G. Stanley Hall asserts that "At least three-fourths of all the time spent by a boy of twelve in trying to learn a hard lesson out of a book is time thrown away. Perhaps one-fourth of the time is devoted to more or less desperate and conscientious effort; but the large remaining portion is dwindled away in thinking of the last game of ball and longing for the next game of tag."

Criticisms of the Recitation.—The author of "An Ideal School" asks these pointed questions: "Can an immature

person study well when distracted by the more lively exercise of the class recitation? Is it not possible that much valuable time of school life has been squandered because the children have not been systematically taught how to study? Does the old-time recitation secure individual interest, give free opportunity for individual advancement, and eliminate all dead time? Are all the pupils of the class equally occupied during all the moments of the recitation? Are not some pupils carefully calculating their chances of being called on, with every encouragement to take a rest as soon as their turns have passed? Are not many learning skill in looking the teacher squarely in the eye without hearing a word that is being said? What fraction of the recitation period is the pupil actually reciting? Is it not true that the best pupils are the ones most called on when the visitors are present? Is not the recitation a fearful bore to the visitor who is forced to endure its long, tortuous, and uninteresting passage? What are the ethical values of this kind of work?"

Referring to the great waste of time and effort in the average recitation, President Harper said: "The recitation is too expensive." Dr. E. E. White wrote: "There are many experienced teachers who cannot teach a class with success. They can develop and present subjects, it may be, but they cannot put these subjects properly before pupils in class. Our observations raise the fear that in many schools effective class teaching is a 'lost art,' if it were ever acquired."

Every intelligent school superintendent knows that, except in the primary work, the ordinary recitation in the grades is simply an oral examination. The teacher asks test questions only and seems incapable of framing a teaching question; while pupils recite merely what they

remember from the so-called study of the lesson without any effort to connect it with their past experiences and acquisitions or to apply it in any way whatever.

Shall the Recitation be Abolished ?—In view of the many abuses of the recitation, some educators advocate its practical abolition, at least in its present form. They point to the fact that the term "recitation" does not occur in English works on school management. In the schools of England the lesson is the important factor, the point of contact between teacher and pupil. The teacher is more vitally interested in how the pupil studies his lesson than in how he recites it.

In the German schools this emphasis of the study lesson, or the study recitation as distinguished from the recitation lesson, is very marked. The teacher studies with the pupils. The recitation is a means of teaching, not simply, or mainly, a means of testing. Very little use is made of text-books in the grades. The laboratory method of study is applied to all subjects. The immediate aim of the "study recitation" is to assist the pupil in acquiring knowledge; the remote aim is to make him a master of the art of study. Thus the teacher becomes, as Dr. Hinsdale has suggested, a "demonstrator" of his subject.

Moreover, even in our American practice, when children first come to school they are unable to make any use of the text-book as a means of preparing lessons, for the simple reason that they cannot read. The teachers in the lower grades must of necessity use the German method of the "study recitation." Teacher and child are brought very close together in the process of instruction. Teaching is direct and individual. The pupil's mental energy is centred upon immediate acts of perception, not on half-hearted attempts to reproduce, through memory, words

from a book. The teacher's attention is fixed on the mental processes of the child, his difficulties and how to overcome them, and this is a main requisite of good teaching. Such an exercise is neither a study period nor a recitation in the ordinary use of the term, but a blending of both, a "study recitation." By this method the progress of the pupils in the lower grades in mastering the difficult arts of reading, phonics, writing, numbers, and accumulating facts in nature study and history is simply wonderful.

And yet, as soon as the child has learned to read, books on all subjects are thrust upon him; he is confined to his seat for long periods and told to "get his next lesson," which is commonly assigned by pages, with no suggestion or help as to its proper preparation. The pupil's time is sharply divided into study periods and recitations. Teacher and pupil are widely separated, coming into direct contact only during the class periods. Such a division of the pupil's time and such a separation of teacher and pupil are, of course, inevitable if the pupil is to learn the art of independent study; yet there is no doubt but that in our American schools these changes are made too early in the pupil's advancement and too suddenly; that pupils are required to devote too much time to the study of text-books; and that they are not given proper assistance in such study. However, in spite of all these misuses and abuses, the recitation cannot be dispensed with in our American schools, and only extremists favor its abolition. With better-trained teachers, simpler text-books, more handwork and manual training, properly assigned lessons, closer oversight of the pupil's seat work, together with judicious individual help in study, these abuses will disappear.

Objects of the Recitation Lesson.—The important place which the recitation holds in our American theory and practice of education may be inferred from the following summary of the objects of the recitation as given by our leading writers. These objects, as given by Roark, are:

(1) To find out *what* the pupil knows and *how* he knows it.

(2) To find out what the pupil does *not* know and *why* he does not know it.

(3) To aid the pupil to a clear interpretation of the lesson in terms of his own previously acquired experiences.

(4) To explain difficulties upon which the class has exhausted its efforts.

(5) To train the pupils in original expression.

(6) The building of character.

"It is during the recitation that the teacher may come into that most intimate and vital touch with the pupils—with each individual consciousness—which gives him opportunity to mould them into intellectual and moral form, almost to recreate them in his own image."

Wickersham outlines the objects of the recitation as follows:

(1) To enable the teacher (*a*) to estimate the daily progress of his pupils; (*b*) to explain and illustrate the lesson, and add new matter to it; (*c*) to keep before the minds of his pupils proper incentives to study; (*d*) to impart moral instruction.

(2) To enable the pupils (*a*) to tell what they know; (*b*) to acquire well-founded self-confidence; (*c*) to fix in their minds what they learn.

Dr. Hinsdale summed up the main objects of the recitation as (1) reporting; (2) correcting; (3) expanding; (4) preparing; (5) study of pupils; (6) pupils' compari-

sons of each other's results. The subordinate ends are: (1) To enable the teacher to judge of the efficiency of his method and to test his own skill; (2) to furnish a valuable language lesson; (3) to give the pupil an opportunity to classify and expand his thoughts through expression; (4) to develop confidence and self-command in the pupil; (5) to imprint the lesson more deeply on the mind; (6) to develop quickness of apprehension and thought; (7) to stimulate the pupils to renewed activity, and to disclose to the teacher their mind and character.

As enumerated by Dinsmore, the objects of the recitation are:

(1) To enable the minds of pupils and teacher to meet upon a common subject, the one to receive, the other to impart knowledge.

(2) To give pupils occasion to tell what they have learned.

(3) To permit pupils to ask questions upon knotty points in the lesson.

(4) To afford an opportunity to correct wrong ideas that pupils may have formed in their study of the lesson.

(5) To give pupils a chance to show the teacher how well they have improved their time and to receive their due reward of commendation.

(6) To test the ability of pupils to master the subject.

(7) To assist pupils in determining the important parts of the lesson and in getting each part into proper relations with the rest.

(8) To keep the connection between present knowledge and that which has been previously learned.

(9) To permit the teacher to fire the minds of the pupils with new zeal for what is yet to be learned.

(10) To give time for the assignment of the next lesson and the measure of its amount.

Dr. W. T. Harris says the aims of the recitation are:

(1) To draw out each pupil's view of the lesson and to test his grasp of the subject.

(2) To correct the pupil's wrong impressions and enlarge his horizon by comparing his views with those of the other members of the class.

(3) To arouse interest in the next lesson, stimulate pupils to study it, and to direct their study.

(4) To cultivate the habit of close and continuous attention.

(5) To bring out the teacher's highest powers as an instructor and leader.

(6) To supplement what the pupil gives.

(7) To inspire self-activity, power of independent study, and keen insight.

(8) To teach pupils the great advantages of helpful cooperation with others.

(9) To help the pupil to overcome harmful individual peculiarities.

Dr. S. T. Dutton names these objects: (1) To broaden and strengthen the life interests of the child; (2) to impress a few truths clearly and vividly upon the minds of the class; (3) to cultivate expression; (4) to secure cooperation; (5) to arouse and discipline the mind; (6) to develop executive ability.

How the Teacher May Realize These Aims.—It will be seen from these summaries that the recitation lesson occupies a very large place in our educational theory. The young teacher should thoroughly master these aims and should seek to apply them in every recitation. At first this application must be deliberately planned and con-

sciously made; but with the increasing power which such practice gives, the teacher will soon find that he can easily, almost unconsciously, apply these aims in his work, and will reap an abundant reward for all his painstaking effort at first. It is folly to expect to become a master-teacher unless we work under the inspiration of correct and definite aims and wise direction and supervision. No one becomes a good teacher by merely teaching, nor are good recitations a matter of chance. There are certain conditions that must be met, certain principles that must be intelligently applied, certain prerequisites that are essentials.

Prerequisites of the Recitation.—Assuming that the teacher's general preparation is what it ought to be, and that pupils are sufficiently advanced to master lessons assigned from text-books, there are four prerequisites to a successful recitation lesson.

(1) The teacher's preparation of the lesson; (2) the proper assignment of the lesson and watchful supervision of the pupil's seat work; (3) the pupil's preparation of the lesson; (4) comfortable, quiet, and healthful surroundings and necessary study helps.

The last one of these topics has been discussed in the chapter, "The School-room as a Factor in Organization." The other prerequisites now demand our attention.

SUGGESTED READINGS

Hinsdale, "Art of Study," chaps. VIII, IX, XI; Roark, "Method in Education," pp. 52–59; Wickersham, "School Economy," pp. 175–181; Dinsmore, "Teaching a District School," pp. 51–56; Dutton, "School Management," pp. 144–145; Hamilton, "The Recitation," chaps. I, II; Ogden, "The Art of Teaching," chap. III; "Report of the Committee of Fifteen."

CHAPTER XVIII

THE TEACHER'S PREPARATION OF THE LESSON

The Dead-line.—The teacher who has ceased to grow has crossed the dead-line, and begins to die at the top. No matter how complete the preparation for teaching may have been, the teacher at work must acquire the habit of daily study. In no other way will growth as a teacher be possible. The teacher who has ceased to be an active student has lost the secret of his greatest power. With most young teachers this study will take the form of daily preparation of the lessons to be taught. Such study is a sure means of growth.

Importance of Daily Study.—To have learned a lesson well is the first step toward teaching it well. Tom Brown's teacher at Rugby, the famous Dr. Arnold, when asked why he made daily preparation for teaching, said: "I want my boys to drink from a living fountain, not from a stagnant pool." Every one knows how surely the events of to-day crowd out of the memory the events of yesterday. The discipline and power that come as the result of faithful study remain with us, but the knowledge vanishes away. It is probably true that children forget more than nine-tenths of what they learn from their text-books. Teachers are not exempt from this law. They cannot rely solely on the knowledge they have gained in high school or normal school or college. Memory must be refreshed. Forgotten connections and associations must be reviewed. Defini-

tions and principles must be relearned. No conscientious teacher will omit the daily study of his lessons. It is not enough to know the subject in a general way. For to do efficient class work, one must know the specific book and the lesson to be taught.

Independent of the Book.—Any teacher who expects his pupils to be independent of the text-book during the recitation surely ought to be independent of the book himself. "Going thus to his class," says Mr. Page, "so full of the subject that were the text-book annihilated he could make another and better one, he will have no difficulty to secure attention." It is a very common thing to hear teachers with open text-books in their hands, teachers who could not possibly recite the lesson themselves, berate their pupils for their dulness and lack of preparation. This does not appear to the average boy or girl to be either fair or honest.

Why Teaching is a Mode of Learning.—Frequently young teachers assert that they never really understood certain branches of study until they had to teach them. Other teachers say that they actually learned more of the branches that they taught their first term than they had learned in any one term as students. There is a great deal of truth in these statements. Teaching and study react upon each other. The effort to make a point clear to others helps the teacher to see it more clearly himself. It has been said that knowledge, stored away, spoils; shared with others, it increases. Sir William Hamilton says: "Teaching, like the quality of mercy, is twice blessed, blessing him that gives and him that takes." And a wise Jewish teacher once declared: "I have learned much from my master, more from my equals, but most of all from my pupils."

Two Different View-points.—When a teacher studies a lesson to teach it, his view-point is quite different from that of the pupil who studies the same lesson to recite it. The pupil is satisfied with the what and the how; the teacher digs deeper for the why. The teacher's time for study is limited, and he has a constant spur and incentive to study in the thought of his success or failure before his pupils. As a rule, the individual pupil in the class does not feel a very large measure of responsibility for knowing the whole lesson. He can share responsibility with the other members of the class. But the teacher must be responsible for the whole lesson. I have known a young man who was teaching his first term to walk ten miles to his home after school to get help in solving a difficult problem rather than face his advanced class in arithmetic unprepared to solve every problem in the lesson. Zeal and earnestness in daily preparation will go far to compensate the young teacher for deficient general scholarship.

How to Study a Lesson to Teach It.—To study a lesson is not merely to memorize its words. The words are important, but they are important only as they are signs of ideas, symbols of thought. In the study of a lesson every important word should be considered; new words should be looked up in the dictionary; the key-thought in every sentence should be mastered, and the meaning of every paragraph should be understood. But any teacher or pupil who masters the thoughts in the lesson in this way ought to be able to clothe these thoughts in his own words. Some further suggestions may not be out of place here.

(1) The teacher should study every lesson, not as an isolated topic, but as connected with all other lessons in the same subject. Pupils often study blindly. Even where they are able to see the relation of the lesson in hand

to those lessons which have preceded it, they are wholly ignorant of its relation to the next topic or lessons, and do not realize that the mastery of to-day's lesson is absolutely necessary to the conquest of the lessons of the future. But the teacher has been over the subject before. He has a view of the whole field, and is able to study each lesson in the light of its relation to all the lessons that have preceded it as well as to all the lessons that are to follow it in the same subject or in kindred ones. This is an immense advantage, and the teacher who is ignorant of this difference between his own study of the lesson and that of his pupils will do them a constant and a great injustice.

(2) The teacher must have a plan of study. In every lesson there are certain essential facts or truths—essential in the sense that they are important in themselves or are necessary to future progress in the subject. The teacher must sift out these essential truths and fix them clearly in his own mind. Many teachers give time enough to daily preparation of lessons, and yet they are never really prepared. They are tied to the book in the recitation. The reason for this is easy to understand. They have no study plan. They merely read the lesson over and over as a whole. They do not look for what is fundamental in the lesson. Trying to put equal emphasis on all parts of it, they emphasize nothing, and therefore remember nothing clearly. Such study becomes more and more mechanical and is a great cause of the indefinite and hazy knowledge of most pupils. The teacher should write out a sketch of the lesson in the form of an outline. The main heads in this outline should be the fundamental truths which he proposes to teach to his class. He may use these notes in his class at first as an aid in emancipating him from slavish dependence upon the text-book. But very soon he

should fix these main truths so firmly in his mind that he can teach the lesson without referring to the notes. Of course these notes should be concise and logically arranged. They should suggest the train of ideas in the lesson. The main topics may be stated in the form of questions, but the class questions, as a rule, should be framed in the recitation to meet the needs of individual pupils.

There is a great deal more in every lesson than the teacher can hope to teach. No teacher ought to expect to teach a class all he knows about the lesson. He must separate very clearly in his own mind what he knows of the lesson from what he proposes to cause his pupils to know. He should always keep in mind the bearing of each lesson upon the lessons that are to follow in the same subject, and also its connection with the other studies that the pupils are pursuing.

(3) In the study of the lesson the teacher should keep before his mind an image of the class, not as a whole, a mere mass of boys and girls, but as individuals. How to help this pupil to see the meaning of some part of the lesson; how to illustrate some hard point for that one; what questions to ask a third; what fact or principle to emphasize for a fourth; how to use the special knowledge or interest of any pupil for the benefit of the whole class—these problems must be vividly in the teacher's mind as he prepares his lesson.

(4) All material for illustrations or experiments in the recitation, and all necessary apparatus, reference books, maps, and charts, should be kept in mind in the teacher's preparation of the lesson. What to use as helps in teaching the lesson, where to use them, how to use them to the best advantage are questions to be considered before the recitation. To have all such helps close at hand and

ready when needed in the class work is the sure mark of a carefully planned lesson.

(5) In making his daily preparation of the lesson, the teacher should provide for a review of what has been taught and a pre-view of what is to come next. Whether the mastery of one lesson shall help the pupil to master the next one more easily depends upon the care and skill of the teacher. For every pupil the study of each lesson ought to be either the application of old principles to new subject-matter or the discovery of new truths by means of old truths already mastered. This is the only kind of study that is really educative.

President Gregory's suggestions to teachers on lesson preparation are so suggestive that I will give a brief summary of them: (*a*) Prepare each lesson by fresh study. (*b*) Find in the lesson its analogies and likenesses, for in these lie the illustrations by which it can be made to reveal itself to others. (*c*) Find the natural order and connection of the different truths of the lesson. A jumbled mass of disjointed facts do not make a recitation. (*d*) Seek the relation of the lesson to other lessons already learned and to the life and interests of the pupils. The vital force of truth lies in its relations. (*e*) Use freely all aids to gain the truth, but never pause till the truth gained has been thoroughly digested in your own mind and its full meaning and importance have grown upon you as a vision seen by your own eyes. (*f*) Study the lesson till its truth and facts take shape in easy and familiar language. The final proof and product of clear thought is clear speech.

When to Study the Lesson to Teach It.—Most teachers fail to realize how important it is to study the lesson *before* assigning it. They assign lessons before preparing them, and hence work at a constant disadvantage. Their lesson

study is barren and unfruitful. No mere cursory glance ahead at the close of a recitation is sufficient preparation to enable the teacher to assign the next lesson intelligently, yet the careful assignment of the lesson is absolutely essential in order to secure faithful or even decent preparation by the pupils. For the pupil the order of steps is: (1) The pre-view of the lesson; (2) the study of the lesson; (3) the recitation of the lesson. But for the teacher the logical order is: (1) The selection and preparation of the lesson; (2) the assignment of the lesson; (3) the review of the lesson; (4) the teaching of the lesson. And it is no more illogical or foolish for a pupil to attempt to recite a lesson before studying it than it is for a teacher to attempt to assign a lesson before preparing it, at least in its general outline. If teachers would only get one day ahead in the preparation of their lessons it would more than double their efficiency in the recitation.

How Daily Study Aids in Assigning the Lesson.—Let us consider some of the ways in which teachers would be aided by faithfully planning and preparing the lesson before assigning it.

(1) They would know what to assign. The amount to be assigned ought not to be mere guesswork, nor ought it to be gauged by pages or topics or cut-and-dried courses of study. Very often unexpected difficulties arise in the lesson as we prepare it—difficulties that we did not suspect when we assigned it. These difficulties may absolutely block the pupil's progress in his study of the lesson. Then, again, many teachers rarely finish the advanced lesson in the recitation, consequently their pupils never take the assignment of the lesson very seriously.

(2) The teacher can emphasize the main points in the new lesson and prepare pupils for intelligent study. He

can state the central thought, or aim, of the lesson, and direct pupils where to concentrate their efforts, where to look for difficulties, and how to overcome them. The pupils are forewarned and therefore forearmed.

(3) Great efforts have been made in the last few years to put a library into every school. Of what value will all this effort and expense be unless pupils learn to use the library intelligently? Only those teachers who prepare their lessons before assigning them can help pupils to use the library to the best advantage. As the wise teacher prepares his lessons he notes the library references that will be most helpful to the pupils. When he assigns the lesson he asks the class, or certain members of the class, to read a reference in some library book and report in the next recitation. Pupils, too, who learn easily can be given extra work in this way. All such references should be very definite, giving the book and the exact chapter or pages to be read.

(4) Having so recently gone over the lesson carefully himself, the teacher is able to give his pupils valuable hints and suggestions that will stimulate them to earnest study. Pupils rarely know how to attack the new lesson unless they receive help from the teacher. They really never get into the lesson; just blunder around it. There is a tremendous amount of misapplied energy in our schools, besides no end of "puttering," wool-gathering, dawdling, laziness, mischief, and meanness, all caused by the lack of care and foresight on the part of teachers in assigning lessons. Frequently a few hints or suggestions would put pupils on the right track at once and secure earnest endeavor to master the lesson. It may be wise to ask pupils to review some previous lesson connected with the one to be assigned, to think over some experience out-

side the school, to ask their parents concerning some local facts, to refer to some other text-book than the one in use for a better treatment of a topic, to look up new terms in the dictionary, to bring to the class some material for illustrative work, to draw certain figures or charts, or to examine some object, place, or phenomenon outside the school-house.

(5) Only by being in close touch with the lesson before it is assigned can the teacher hold before the class a reasonable and consistent standard of work in preparing their lessons. The lessons of the pupils all taken together should require a uniform amount of effort each day. Spasmodic work is not educative in the best sense. Suppose a pupil to have five lessons to prepare every day; the teacher should assign each of these lessons in view of the other four; and taken all together, they should make a task which the pupils can reasonably be expected to master. In no other way will pupils learn the great lesson of feeling personally responsible for preparing every lesson assigned.

How Daily Study Aids the Teaching of the Lesson.—In the teaching of the lesson the rewards of careful daily study are immediately apparent.

(1) Being reasonably independent of the text-book, the teacher is left free to give all his mind and energy to the work of teaching. As he teaches, his eyes are free to observe his class and his thought is not so much fixed on the subject-matter of the lesson as on the mental processes of the pupils. Seeing the faces of his pupils the teacher can judge correctly of the class progress. He knows when a point has been mastered. He quickly detects any lagging of interest and wins it back by an apt illustration. He observes the special difficulties of individual pupils and

restates the obscure point. In this way he checks the forward, encourages the timid, calls back the inattentive, and puts new life into the discouraged.

(2) The teacher can become a skilful and ready questioner. As long as the teacher is tied to the text-book he has no freedom in questioning. His questions are bookish and do not grow out of the pupil's answers and immediate needs. There is little adaptation to individuals and no life or enthusiasm. But where the teacher's preparation is full and fresh all these hindrances are swept away. The questions grow naturally out of the pupil's needs, are well distributed, require careful thought, and are a constant spur to interest and attention and a perfect curb to any tendency to disorder.

(3) No time is lost in attempting to recover from the effects of a wrong assignment of the lesson and consequent lack of preparation by the class. No apologies need be made, no excuses offered. Occasions for irritation and fault-finding are reduced to the minimum. No time of the recitation is lost in attempting experiments that won't work, hunting up globes and charts that may be wanted, or sending pupils to other rooms to borrow maps and apparatus.

In conclusion, the teacher who wisely and faithfully prepares his daily lessons and who does not run the risk of assigning his lesson without careful planning will not be put to shame before his pupils by being unable to answer their questions in the recitation or to decide class discussions correctly. He will not often have to confess his ignorance or pretend to know what he does not know. In fact, so essential is this daily study of the lesson, this fresh knowledge of the subject, that without it the recitation does not deserve the name of an educative process at

all. Without such daily planning and preparation the teacher must fail to keep the school wisely and profitably employed. Poor order, rebellion, loss of time, shiftless habits, and anarchy are the sure results in the school; and to the teacher, worry, loss of temper, injury to health, and the consciousness of failure.

Bagley says: "Every lesson that is to be taught should be worked out beforehand. The best manner of approaching the lesson should be determined, and questions framed that will prepare the class for the new material. Illustrations should be sought from all possible sources, worked over, and adapted to the age and mental attainments of the pupils. At the beginning, the teacher would do well to write out carefully the plan of each lesson, including the specific questions and explanations, and to rehearse the whole before an imaginary class. This is a strenuous programme, but it will return large dividends upon the time and energy invested. In addition to work of this nature, one should reflect carefully upon the order in which pupils are to be called upon for recitation and adapt questions and topics to the peculiarities of individual children. Finally, the independent work of the pupils during the study periods should be planned and the necessary materials provided."

Such faithful, painstaking preparation brings its own rich reward in the daily consciousness of growth in power and usefulness, in the respect of the community and the love of the pupils, in freedom from loss of nervous force expended in "governing the school," and in the absolute certainty that an abundant harvest will follow such sowing.

SUGGESTED READINGS

Hamilton, "The Recitation," chap. IV; Landon, "Principles and Practice of Teaching," pp. 52–82; Garlick, "Manual of Method," pp. 48–56, 75–78, 351–358; Dutton, "School Management," pp. 249–275; Bender, "The Teacher at Work," pp. 34–58; Page, "Theory and Practice of Teaching," pp. 43–46, 141–143; Hinsdale, "The Art of Study," chaps. I, II, III, XXII; White, "The Art of Teaching," pp. 105–112; Roark, "Method in Education," pp. 49–51; Salisbury, "The Theory of Teaching," pp. 320–325.

CHAPTER XIX

PROPER ASSIGNMENT OF LESSONS

Meaning.—To assign a text-book lesson properly is to set a definite problem before a class to be solved and to give them sufficient motives and helps to solve it. It is pointing out a goal to be reached, an ideal to be realized. It should be a spur to interest, a challenge to effort, and a guide to thought.

"To assign a lesson," says Roark, "is to designate a more or less definite portion of subject-matter to be acquired, assimilated, and put into some form of expression." Other suggestive terms for lesson assignment are the preliminary drill, the pre-view of the next lesson, or the pre-survey of the lesson. As used by Hinsdale, the term "study-recitation" is an exercise which is neither all study nor all recitation, but a compound of the two, and so does not differ from the original work of the teacher and pupil (before the pupils were able to use text-books) except in its greater difficulty and the fact that the matter is drawn from a text-book.

Some Things Assumed in Assigning a Lesson.—(1) When a teacher assigns a lesson to a class to be learned from a text-book, he assumes that all the members of the class are able to use that particular text-book intelligently, to understand its words, to grasp its thought and meaning, to comprehend its ideas by interpreting them through their relation to their own previous knowledge and experiences.

(2) The teacher assumes that each pupil has the time, health, strength, the necessary means, and a favorable opportunity to prepare the lesson as it is assigned. Unless these conditions exist it is little less than criminal to assign the lesson. If one or more pupils in the class cannot study the lesson intelligently because of lack of previous preparation, they should be reclassified or receive individual help. If the text-book is not a suitable one for the class it should be discarded. If the pupils are weak, sick, or overburdened with work, they should be excused from the preparation, or at least a part of it. If the school-room conditions are not favorable to study, the order poor, the ventilation bad, the teacher should use his utmost endeavors to make them better.

(3) It should be assumed that the teacher has mastered the course of study sufficiently well to know how to plan the work of the year or the term to the best advantage, how to divide the subject-matter into "method-units" and "lesson-units." Unless the teacher is able to do this, there is no assurance that the work and progress of the pupils will be reasonably uniform throughout the month, term, or year, and that the different subjects and lessons will be properly correlated. The lesson assignment for one day will be too long, the next day, too short; too hard to-day, too easy to-morrow. This is what Arnold Tompkins meant when he said: "For practical purposes the whole course of study must be worked out in quite minute details. No matter if a teacher teach but a single grade, that work cannot be done intelligently without a sense of its organic relation to the whole." At the first of the year the lessons should be considerably shorter than the average, and much attention given to review.

(4) It should always be assumed in all honesty that the

teacher has made special preparation for assigning the lesson; has measured the lesson carefully, not by the standard of pages or chapters or number of problems, but by the amount of thinking and mental energy and time required for its preparation; has formed a plan of study for the class that is reasonable, helpful, and suggestive.

(5) That pupils will be held rigidly responsible for the work assigned is also assumed. To assign a lesson and not to demand an accounting of pupils for the work assigned is worse than a waste of time and a violation of sound pedagogy. It is an immoral act; for it is a species of deception, a mere pretence, and a standing encouragement to pupils to shirk their duty. It destroys the pupil's sense of personal responsibility and leads to the formation of habits of idleness and disobedience. Page says: "Now the effect of learning a lesson poorly is most ruinous to the mind of the child. He, by the habit of missing, comes to think it a small thing to fail at recitation. He loses his self-respect. He loses all regard for his reputation as a scholar. It is deplorable to see a child fail in a lesson with indifference."

Assigning Lessons a Test of a Teacher's Ability.—"Few teachers realize," says White, "how fine a test of teaching ability and success is the manner in which lessons, and especially book lessons, are assigned. A very good judgment of a teacher's work may be often based on this simple test. 'Take the next chapter; class dismissed,' is sufficient ground for dismissing a teacher from further consideration if one is looking for a first-class instructor."

(1) To assign a lesson properly the teacher must know not only the subject, the book, and the lesson, but also the sequence of topics and lesson-units, as well as their con-

nection and correlation with lessons in other subjects which the pupil must prepare. He must be able to select the essential facts in the lesson from the non-essentials and to direct the pupil's effort to the mastery of the leading concepts and principles.

(2) The teacher must be in such close touch with his pupils as individuals as to know something of their previous experiences; their out-of-school life; their leading interests, emotions, and ambitions; their games, favorite books, and home occupations.

(3) The proper assignment of the lesson requires of the teacher sufficient insight to see that the subject-matter of the daily lessons is only a means by which each pupil in the class finds the realization of his unfolding inner life, his intellectual aspirations, his best impulses, his æsthetic and moral emotions. Every lesson should be assigned so as to afford the pupil an opportunity to develop some power, to satisfy some desire for truth, to realize some hope, ideal, or aspiration.

(4) According to Salisbury, the teacher, in order to assign a lesson well, must meet these conditions: (*a*) He must be conscious of the general aim of each particular study or branch—the reason why it should be taught at all; (*b*) he must have a distinct recognition of the particular aim of the given lesson, the reasons for teaching it, and the definite result which should follow; (*c*) he must clearly apprehend just what mental steps or processes are necessary on the part of the pupil before he can realize the definite result aimed at; (*d*) he must understand just what foundation the pupil has to build upon, what mental possessions he has that are related to the new topic; (*e*) he must base his plan of instruction, aims, and method upon the fundamental laws of mind.

Importance and Value of Good Lesson Assignment.—From the foregoing considerations it is clear that no other part of the teacher's work exceeds in value and importance the proper planning and assignment of the daily lessons. It is supplying the class and the school with a definite plan of work. It is preparing the mind of each individual pupil for the reception of new truths and whetting his intellectual appetite for a feast of good things. It inspires confidence by pointing out to the pupil just how he can use his past lessons and acquisitions to make new conquests. It prevents pupils from misunderstanding the lesson or approaching it with indifference or positive aversion. It enables the pupil to approach the new lesson in an apperceiving mood, and helps pupils to form the habit of being successful in their work and of making a daily application of their old knowledge. It prevents the teacher from degenerating into a mere talker, and, where text-books are used, should be the most vital part of the recitation. Bagley says: "Opponents of elaborate assignments tell us that the pupil gains strength by overcoming difficulties, and that he should attack the printed page without help and get out of it what he can. . . . The natural result is that the teacher who does not teach in the assignment is forced to teach in the recitation."

Principles Governing the Assignment of Lessons.—(1) The lesson should be assigned in such a way as to appeal to the child's instincts and emotions. Few teachers realize how rich and varied the child's emotional nature really is, and fewer still realize that all the child's incentives to effort must spring out of his instincts and feelings. When children are constantly being forced to think and to study, there is something wrong; for the normal child's natural hunger for ideas is as instinctive as his hunger for food.

The instincts of ownership, collecting, imitation, activity, construction, co-operation, mastery may all be brought into the service of the school by the wise teacher. Interest, curiosity, expectation, eagerness, hope, desire to know, wonder, surprise, perplexity, doubt, mystery, belief are all intellectual emotions, and may become strong incentives to study if the teacher has the skill to appeal to them aright. And besides all these, there are the moral and æsthetic emotions, such as the love of beauty, symmetry, and harmony, the sense of right, duty, obligation, all of which the teacher may make his allies. Even the egoistic emotions of pride, emulation, ambition, and love of approbation may be drafted into service where individual pupils cannot be reached by other means. Poor, indeed, must that lesson be if it cannot be made to appeal to some of these instincts and emotions, and unskilled the teacher who cannot assign the new lesson in such a way as to arouse in the pupil a definite interest, an active curiosity, a real desire to know more about it.

(2) The lesson as assigned must challenge the child's power to think. Feeling, interest, curiosity must be supplemented and made productive by intellect. The desire to know must be more than a mere impulse or a vague, indefinite, hazy, or temporary incentive. It must be a longing to know plus a distinct idea of what to know; hence the need of a clear statement of the aim and purpose of the new lesson. The pupil's desire to realize the aim must be a real and conscious need, a felt want that suggests certain definite efforts to satisfy it. Thinking is comparing objects or ideas, noting their likenesses and differences, and classifying them according to certain selected qualities. The subject-matter of every lesson contains objects whose qualities are to be noted, compared, arranged, or ideas

which are connected by thought relations. To discover these qualities and thought relations is to think the lesson. Some of the most common thought relations are similarity, difference, identity, subordination, exclusion, whole and parts, time, space, quantity, number, position, design, cause and effect. The search for these thought relations has all the interest of a puzzle. And the mind is so constituted that the discovery of these relations gives intellectual pleasure. Thus successful study is the oil that constantly, mysteriously feeds the lamp of interest. To make a new application of Spencer's thought, the final test by which to judge of the merit of any lesson assignment is: "Does it create a pleasurable excitement in the pupils" as they study the lesson according to its directions? As Mr. Spencer so strongly puts it: "Children should be led to make their own investigations and to draw their own inferences. They should be told as little as possible and induced to discover as much as possible. . . . If the subjects are put before him in right order and right form, any pupil of ordinary capacity will surmount his successive difficulties with but little assistance. . . . This need of perpetual telling is the result of our stupidity, not of the child's. . . . Having by our method induced helplessness, we straightway make the helplessness a reason for our method."

(3) The assignment must persuade the pupil's will to make an aggressive attack upon the lesson. The pupil should feel eager to begin the task. He should approach the preparation of the lesson full of courage, confident of success, convinced that he can conquer it. The lesson as assigned must appeal to him as possible of accomplishment; difficult enough to call out his best powers, but not too difficult; long enough to call for sustained effort, yet

not too long to be thoroughly mastered in the allotted time. The teacher should see to it that the pupils are given a fair chance to master the lesson assigned. He must remove from their pathway insurmountable obstacles or show the way around them, but he must not attempt to level all the rough places. He must warn pupils of ambuscades and dangers, but he must make them march and not carry them in ambulances. He must furnish proper assistance and provide necessary helps, but he must be careful not to cumber the pupil with crutches.

(4) The lesson assignment should appeal to the pupil's past experiences so as to call up those ideas, and only those, that are most nearly related to the new ideas in the lesson. Of late years there has been a great deal of discussion of Herbart's formal steps of instruction, and these steps are made the basis of lesson planning in many normal schools. Unfortunately they are often called the "steps in the recitation," and are treated throughout as though all instruction in the schools could be given orally, as if text-books were never used and lessons never assigned for study. Thus in our attempt to be logical we forget to be sensible. As a matter of fact the formal steps apply primarily to the pupil's mental processes in the act of acquiring knowledge, and therefore apply with special emphasis to the pupil's study of the text-book, after the lesson has been assigned. To understand his lesson as he studies it, the pupil must grasp the new ideas by means of his old related ones, compare them, abstract the essential qualities, and form generalizations. In fact, this is the only way that he can really study or think at all, for anything else is a sheer attempt to memorize words that are meaningless to him. Now the proper assignment of the lesson is the first or preparatory step of instruction and enables the pupil to

complete fairly well the next step, or presentation, without the further aid of the teacher. The assignment of the lesson also involves the review of preceding lessons in the light of the added knowledge which the pupil has gained from his most recent study and may thus afford him the best possible opportunity to apply his knowledge as he acquires it. The purpose of the recitation lesson, then, will not be to discount the pupil's efforts at independent study by treating the lesson which he has faithfully prepared from the text-book as entirely new matter to be "prepared for," "presented," "compared," and "generalized." Of course the teacher should review these processes sufficiently well to test the pupil's preparation, suggest comparisons, clear up misapprehensions, strengthen the weak places, and call for the restatement of definitions and principles; but the greater part of the recitation period should be given to illustrative work, to comparison and generalization, to applying the facts and principles learned from the book to new cases, and to a careful assignment of the next lesson. Where the next lesson assignment introduces a new topic, it may be wise to give nearly the whole of the recitation period to the one step of preparation. Thus it will be seen that when the formal steps in instruction are applied to text-book lessons the step of preparation is the one that belongs most peculiarly to the recitation lesson, and that it practically constitutes the proper assignment of the lesson.

It is clear that the assigning of a lesson will, as a rule, dominate the pupil's method of study and therefore determine his habits of thinking. There is no doubt that the careless, thoughtless, hap-hazard way in which lessons are assigned is largely responsible for the average pupil's inefficiency in study. The ordinary method of assigning

an arithmetic lesson is to give out so many problems to be solved. The result is that pupils simply read the rule with no comprehension of the principles on which it is based, look over the model solution in the book, and then try to work the other problems like it. "Doing sums" in this way is not studying arithmetic. It is at best only a shallow process of imitation utterly stultifying in its effects. Getting a lesson in history or geography, assigned by pages, is usually a still less intelligent process, since there are no model solutions to imitate.

Steps in the Assignment of the Lesson.—As a rule the proper assignment of the lesson comprises several distinct steps, although these need not be taken in the same order in all lessons.

(1) *Review Questioning.*—Since the pupil must use his old knowledge to interpret and understand the new lesson, it devolves upon the teacher to help him to call up those ideas in his possession that are most nearly related to the ideas in the lesson to be assigned. In calling up these related ideas the pupils must use the powers of memory, analysis, and oral expression. The teacher's instrument here is suggestive review questions. Some of these questions will quite naturally grow out of the preceding lessons, but they need not be confined to these lessons. They may cover a wide range of topics and deal with any experiences of the pupils, in school or out of it, that are closely related in thought to the new lesson. It is often the case that when a new topic is to be introduced, some local event, some great man's birthday, a coming holiday, a bit of news in the daily paper, an excursion to fields or woods, the erection of some near-by structure, some pupil's recent trip, a visit to a factory, a picture or a story may serve as the best starting-point for

the line of questioning. One main object of these preparatory questions is to lead pupils up to the limit of their knowledge on the subject in hand in order that they may feel the need of further knowledge. The more clearly the pupil separates his old ideas from those new ones to be presented in the lesson, and the greater his desire to know more on the same subject, the better the introduction has been. The questions should be definite and fairly well distributed over the entire class. As soon as the properly related ideas have been secured from the class, they should be summarized and arranged so as to form the best possible natural introduction to the new lesson. It will be seen that this step in the assignment of the lesson constitutes the best possible review of previous lessons.

(2) *Stating the Aim.*—The aim of the new lesson should be clearly stated. When the new lesson introduces a new topic, this step may well precede the review questioning, for here the statement of the aim seems necessary to give definite direction to the pupil's thinking. Dr. Rein says: "If the aim of the lesson has been rightly put, it produces a flood of thoughts in the pupil at once. . . . To conduct a child along an unknown road, toward an unknown object by means of questions and hints, the purpose of which he does not see, to lead him on imperceptibly to an unknown goal, has the disadvantage that it develops neither a spontaneous mental activity nor a clear insight into the subject." It is taken for granted that the teacher has the aim clearly in mind. The need of having an aim in each recitation is just as important as it is in building a house or planning a journey. Aimless work is shiftless work. The teacher must state the aim of the lesson so clearly, definitely, and simply that each member of the class can fully grasp its meaning.

The aim should be stated from the stand-point of the pupil rather than that of the teacher. Of course, the teacher should have in mind the larger aim of the whole topic, type, or method-unit, and must clearly understand the relation of each specific lesson aim to this larger aim, but the pupils must approach this larger aim step by step and lesson by lesson. They must toil up the mountain side before they can catch the full and splendid view from its summit and recognize the landmarks which they have passed in their ascent. In stating the aim, a set form of words should be avoided. As a rule, it is best to put the aim in the form of a problem, and it should always suggest some important thought relation. If there is danger that pupils will forget the aim as stated, they should write it out, or the teacher may write it on the board.

The value of the aim is readily seen when it is realized that this aim is to be the pupil's guide in the preparation of his lesson at his seat or at his home, and that where a definite aim is lacking there is little will to work. The aim serves as a common meeting point for the minds of all the class and the teacher, and this unifies their thoughts and efforts in both the study lesson and the recitation lesson. It saves time and energy, secures definite work, prevents failure and discouragement, serves as a standard of value by which to judge all the means used to accomplish it and to test every step of the pupil's learning and the teacher's teaching. To omit the aim is to invite failure, encourage poor preparation of the lesson, set a premium on idleness and the formation of shiftless habits, and pave the way for a disorderly school.

(3) *Removing Difficulties.*—The teacher who has carefully gauged the new lesson, prepared it, at least in its general outlines, and made out a definite plan of presenting

it, is in a position to know what particular parts of the lesson will present the greatest difficulties for the pupil. In many lessons, even in the best text-books, there are old words used in a new sense, hidden generalizations, references to laws and facts of which pupils are absolutely ignorant, figures of speech, unusual and difficult constructions, and obscure passages. If pupils are left to plunge into these difficulties unwarned and unassisted, only a few of the very brightest will succeed in floundering through the lesson. The rest will back out. The teacher should not withhold the proper help under the mistaken notion that pupils should be left to work out their own salvation unaided. Only the elect will be saved by such a process. Knowing the specific lesson and the class, the teacher should give such aid in removing the difficulties of the lesson as will enable the average pupil to prepare it well. The brightest pupils should be given some additional work and the slowest pupils should receive individual help. No pupil who has the spirit to work should be permitted to fail in the preparation of the lesson because of the inherent difficulties of the text-book.

(4) *Suggestions and Directions.*—In the assignment of the lesson the teacher should distinguish very carefully between suggestions and directions. The difference between them is the difference between *may* and *must.* Suggestions are for the individual; directions are for the class. The individual pupil may not follow the suggestions of the teacher, and no offence is committed. He chooses for himself, does as he pleases. But no pupil is at liberty to disregard the directions of the teacher. If he directs that certain written work be handed in, failure to do so on the part of any pupil constitutes an act of disobedience for which he is to be held personally responsible.

But if the teacher suggests that certain references would be of value and interest if read in connection with the lesson, no personal responsibility for reading them is implied. Thus the teacher may make every recitation a means of cultivating the pupil's sense of personal responsibility and at the same time encourage individual choice, tastes, and preferences. Order, logical relation, and system are secured in the recitation by holding the pupils rigidly to the directions; while richness, variety, spontaneity, and voluntary effort are secured by the responses of individual pupils who have seized upon this or that bit of work suggested by the teacher.

(5) *Time for the Lesson Assignment.*—The best time for assigning the lesson is usually at the close of the recitation, although until pupils have acquired some skill in the use of text-books the best time for making the assignment is just before the pupils begin their study of the lesson. The amount of time required for making the assignment varies greatly according to the subject, the class, and the lesson. Only the teacher in charge of the class can judge rationally of this matter, and superintendents should leave them as free as possible to follow their own judgment.

(6) *Oversight of the Pupil's Study.*—No teacher should presume to think that his whole duty is done when the lesson has been properly assigned. He should see that the pupil works on his lesson. This requires careful and constant supervision of the pupil's seat work. No pupil should be permitted to fool away time in school under the mistaken notion that such time can be "made up" at recess or after school. The teacher who forms the habit of keeping pupils after school to make up lost time confesses his own incompetency.

Throughout this discussion it has been assumed that the

lessons assigned are text-book lessons, consequently parts of the chapter do not apply to oral lessons. But since text-books are so universally used in our American schools, it seems fair and necessary to discuss the assignment of lessons from this stand-point; for there is no more important work of the teacher than the proper assignment of the lesson from the text-book.

SUGGESTED READINGS

White, "Art of Teaching," pp. 126–128; Bagley, "Classroom Management," pp. 192–206; Seeley, "A New School Management," chap. XVI; Chamberlain, "Standards in Education," pp. 205–209; Dutton, "School Management," pp. 151–152; Bender, "The Teacher at Work," pp. 17–19 and 59–62.

CHAPTER XX

THE PUPIL'S STUDY OF THE LESSON

The Study Lesson.—As we have shown in the preceding chapter, the recitation lesson and the study lesson are very closely related, are, in fact, where text-books are used, parts of the same process. The study lesson is a continuation of the work begun in the previous recitation when the lesson was assigned, and the next recitation is the completion of the work begun in the study lesson. If the seat work of the pupils is not well planned and wisely directed, their efforts to prepare the lesson are crippled and their time is wasted or misused; and on the other hand, if the following recitation is to be a success, pupils must be diligent in preparing the lesson as assigned by the teacher. It is conceded that teachers, as a rule, fail to realize this close connection between the recitation and the study lesson and fail equally to correlate them in their practice. For this reason we have placed great emphasis upon the proper assignment of the lesson. But, as we have shown, no teacher should imagine that his work with a class is ended as soon as he has assigned the next lesson and sent the pupils to their seats. He must see to it that the pupils set to work on the preparation of some lesson and keep at work during the time allotted for its study. No mere assignment of the lesson, no matter how carefully made, is sufficient to insure a good recitation. It is equally important to supervise the seat work of pupils. White says: "Both the

family and the school assume that the child needs something more than the self-impulsion of instinct, nature, and experience in mental activity and conduct; and so each provides him with the assistance of wider experience and knowledge and the help of personal influence and control. The school recognizes that the child does not learn to think by mere thinking, but that he learns to think correctly by thinking under guidance." "The application of the pupil," says Bagley, "in the period of seat work tests the efficiency of the assignment. One of the surest indices of a teacher's ability is the diligence of the study class."

Waste of Time in So-called Study.—We have referred to the statement of G. Stanley Hall in which he asserts that "At least three-fourths of the time spent by a boy of twelve in trying to learn a hard lesson out of a book is time thrown away." And Dr. Hall is by no means alone in this conviction, as the following statements show:

"We would be safe in saying that from one-half to two-thirds of the time devoted to study in the schools is employed to little or no purpose, or perhaps to positive disadvantage of the pupil. . . . The very time and energies that were intended for the most benevolent purposes are most shamefully perverted, and turned against the child, as a shaft of self-destruction. They are squandered, and worse than squandered, at a time, too, when they can least be spared" (Ogden's "Art of Teaching," p. 44).

"We hear on every hand the complaint that the modern child is not taught to study" (Dutton's "School Management," p. 167).

"In the school-room misdirected and wasted effort is one of the commonest facts. It is one of the most serious wastes in education of which so much is heard. . . . The art of study is nowhere adequately taught. . . . The ordi-

nary teacher does not know how to teach the art well, or even understand its importance. Time wasted is energy thrown away and opportunity lost because pupils cannot study, that is, cannot properly do their work. . . . But why do teachers neglect this art? The answer is, partly because they do not appreciate its value and partly because they do not know how to give it the kind of attention that it requires. Moreover, this lack of appreciation and this lack of ability are closely bound up together" (Hinsdale's "Art of Study").

"The unchallenged charge that the pupils promoted to high schools do not, as a class, know how to study is a pretty serious indictment of the grammar school. Teachers who have had twenty or more years' experience in high schools agree that pupils now admitted to the high schools cannot attack and master a book lesson as well as the pupils who were admitted twenty years ago; and this decline in book power is generally attributed to the absence of needed book study in the grammar school" (White's "Art of Teaching," p. 130).

Speaking of seat work, Bagley says: "This phase of school-room activity or inactivity is beyond doubt responsible for much more than one-half of the serious waste of time that our American system involves. The time spent by the average child in 'preparing lessons' is very largely time thrown away."

Importance of Learning How to Study.—This almost universal neglect to teach pupils how to study is all the more remarkable from the fact that beyond the primary grades book study is supposed to be the chief occupation of pupils. "The study period, as well as the recitation, is the teacher's opportunity to train pupils to proper habits of thought and investigation; and the teacher must recognize

and improve the opportunity as much in the one case as in the other" (Tompkins's "School Management," p. 137).

"Study is the most important employment of the school. Without it there can be but little progress in learning" (Wickersham's "School Economy," p. 119).

"The training necessary to gain this power of application must be begun with the first lesson assigned to the child in school, and it must continue to the end of school life. It is the real work of the school; something to do, something to acquire in a given time" (Sabin's "Common Sense Didactics," p. 19).

"Study, through self-help, develops in the individual the power of initiative. This is the power to introduce, to start, to suggest, to propose. It is the ability to see and to do in a good way what ought to be done, without suggestion or direction from others. . . . Persistent application is the great instrument of self-culture. Through it the individual may grasp the keys that will open to him the very treasure-house of truth. Study develops self-reliance and self-control, trains the power of initiative, and opens and controls the gateway to self-culture" (Hamilton's "The Recitation").

We have given these authorities to show how general is the agreement that (1) the time of pupils is largely wasted in school; (2) the waste is due to the fact that they are not taught how to study their lessons; (3) no work of the teacher is more necessary or more important than to train pupils in the art of study.

Aims of the Study Lesson.—In his oversight of the study lesson the teacher should keep in mind the aims to be attained in this part of the work. It surely needs no argument to prove that if pupils need a definite aim in the recitation, when at work under the immediate guidance and

direction of the teacher, still greater will be their need of such an aim while they are preparing their lessons without the teacher's active assistance and direct aid. This topic has been treated quite fully in the chapter on the "Proper Assignment of the Lesson." We are not advocating the "Individual method" nor the "Batavia plan" when we insist upon the proper supervision of the study lesson and the need of a definite aim in the pupil's preparation. What we need is a proper correlation of study lessons and recitations. Recitations are by no means to be abolished, for to do away with them would be to deprive the pupils of very much of the best training which the school affords, and would also take away from the pupil the most potent, immediate, and natural stimulus to study. Therefore it would seem that the solution of the difficult problem of preventing waste of time and energy in school work is not to abolish the recitation nor even make it subordinate to the study lesson.

Nor will the problem of waste in the school-room be solved by the introduction of manual training and all the arts and crafts into the course of study. Intelligent thinking must accompany or precede all rational action, and the manipulation of materials by pupils under the guidance of teachers who are incompetent to teach children how to think and plan, how to observe and study, will not reform our schools.

The really vital question is to bring about a better correlation between the pupil's seat work and his class work. And this correlation can be effected by properly assigned lessons and wise oversight of the pupil's study lesson. In stating the aims of the study lesson we may well pass over the rather sweeping and indefinite objects usually given by educational writers, such as "a well-formed mind," "a

well-filled mind," "a well-rounded character," or, as another writer puts them, "knowledge, discipline, aspiration, and efficiency." These aims are too broad and general and apply as much to the recitation as they do to the study lesson. Only a few of the more definite aims will be suggested.

(1) *To Acquire Power to Master Books Independently.*— As Dr. White says: "It is to be kept in mind that knowledge is not the only end in view in teaching, but, what may be more important, the training of the pupil's power to acquire knowledge from books."

Whatever may be the value of oral instruction, there is one thing that cannot be taught orally, and that is the independent and right use of books. That the mastery of books is one of the most important things that the school has to give is obvious, for the independent and wise use of books is the chief means of self-culture open to pupils after they leave school. In these days when ardent reformers would banish books from the schools, teach all subjects orally, introduce all the arts and trades, and teach pupils to "make things," it is well to remember that written language preserved in parchments and books and scattered abroad by means of pen and printing-press is still the greatest force in our civilization and the most precious product of man's thought. School training should unlock the treasure-houses of wisdom by teaching pupils how to read the best books in the best way, how to master the art of "husking the author's thought."

The report of the Committee of Fifteen says: "Inasmuch as reading is the first of the scholastic arts, it is interesting to note that the whole elementary course may be described as an extension of the process of learning the art of reading." Now the art of reading, in the large

sense, is acquired only through the study of text-books in arithmetic, geography, history, and so on. It cannot be taught by theory, but must be learned by practice. To learn the art of study, pupils must study, not fitfully, disconnectedly, without direction and definite purpose, but with proper guidance and with adequate mental stimulus. Only in this way can the average pupil acquire the power to become, at last, independent of teachers and schools. Only thus can he really enter the realm of wisdom, a realm so vast, so rich, so beautiful as to repay a hundred-fold every one who gains admission to it for all the hardships of the journey. Therefore the wise teacher will carefully supervise the efforts of the pupils in learning their lessons, will plan their work carefully, will encourage their attempts at independent study, will give only such assistance as may be needed, and will seek in every possible way to rightly teach the art of study.

(2) *To Acquire the Power of Sustained Thinking.*—Not all reading is study, and for three reasons: (1) The reading matter may be trivial as compared with the reader's ability to think; (2) it may possess an undue sensational interest; (3) the reader may seek to master only the words, giving little or no heed to the thought. Now, in the first case, the pupil does not improve in the power to think, for to improve in any power that power must be exercised nearly or quite up to its limit. A course of study, properly arranged, affords a continuous exercise of the pupil's increasing power to think. And text-books are graded according to their difficulties so as to afford opportunity for this same up-to-the-limit thinking at every step of the pupil's progress.

In the second case, the reading matter may possess great interest but have no educational value whatever. Indeed,

it may weaken or destroy the pupil's power to apply himself to hard study. Skimming the daily newspaper, the cheap magazine, or the dime novel does not cultivate the habit of sustained thinking.

In the third place, the so-called study of a text-book for the purpose of learning the words merely does not help the pupil to acquire the power to think. Writing of his experience as a pupil, Dr. Francis Wayland said: "Geography was studied without a map, by the use of a perfectly dry compendium. I had no idea of what was meant by bounding a country, though I daily repeated the boundaries at recitation. I studied English grammar in the same way. I had a good memory, and could repeat the grammar throughout. What it was about I had not the least conception. Once the school-master was visiting at my father's, and I was called up to show my proficiency in this branch of learning. I surprised my friends by my ability to begin at the commencement and to proceed as far as was desired; yet it did not convey to me a single idea." And under some modern teachers, even high-school students commit to memory the demonstrations to theorems in geometry. Thus it is clear that no simple reading of books constitutes study. It is only the close and persistent effort to master the real thought of a book suited to his ability and not possessing an undue sensational interest that cultivates the pupil's power of sustained thinking. And it would almost seem that pupils have to acquire this power out of school rather than in it, because teachers so often fail to understand that reading a book may not be study, and do not realize the value of the real study of text-books as a means of cultivating the power to think.

(3) *To Form the Habit of Self-controlled Work.*—Pupils form the habit of work just as they form other habits, by

practice. Close attention, persistent effort to accomplish a definite purpose, steady application to the task in hand, are all required in the right preparation of a lesson that has been properly assigned. And this training, begun in the lower grades and continued judiciously, systematically, to the end of the course, will enable the pupil to carry with him into his life work the elements that win success; for such a habit of self-controlled work represents years of faithful, continuous effort, daily tasks well performed, self-restraint, self-reliance, and self-direction.

(4) *To Develop the Sense of Personal Responsibility.*—Another object of the study lesson is to teach pupils the great lesson of individual responsibility. Well-defined daily tasks are allotted to the pupil every day. Every day he is called upon to render an account of the manner in which he has performed his daily tasks. No better way has been contrived to develop in children the sense of personal responsibility than the hourly alternation of recitation and study lesson, when lessons are properly assigned, the pupil's preparation carefully supervised, and the pupil held rigidly to account in the recitation for the proper use of his time and opportunities. Such are some of the objects of the study lesson.

Study Defined.—Study, as we have shown, means more than the mere act of reading. We do not apply the term study to the perusal of the ordinary novel, nor do we speak of reading a text-book. Study is more than reading; it is intensive, thoughtful reading. Study is the use of books for the purpose of mastering a subject or some portion of it. This is the usual school meaning of study. In a larger sense, study is close, persistent attention to any subject of thought; the term study implies earnestness, zeal, diligent effort. No cursory looking over the pages

of a book is study. No attempt to merely memorize the sentences and paragraphs of a book is study. No automatic, half-hearted conning a lesson over and over is study. No frivolous trifling with lessons is study. Study is the opposite of wool-gathering, mind-wandering, mental sauntering, intellectual puttering. Study is not a social function. White says: "Study is the attentive application of the mind to an object or subject for the purpose of acquiring knowledge of it. Study involves persistent attention, the continued or prolonged holding of the mind to the knowing of an object by acts of the will." To study is to observe with care, to discover qualities and relations, to compare objects or ideas, to analyze a whole into its parts, to combine ideas into new groups, to classify knowledge; it is investigating with interest, examining with a purpose, inquiring with zeal. Study is the self-effort of the pupil to obtain knowledge. It is the greatest of school arts, for it is the soul searching for truth. In the words of Lessing: "Did the Almighty, holding in his right hand Truth and in his left hand Search after Truth, deign to offer me the one I might prefer, in all humility, but without hesitation, I should choose Search after Truth."

Nature of Study.—To understand the nature of the processes that go on in the child's mind in the act of study, the teacher must know what the laws of apperception and association, of induction and deduction really mean. These laws have been stated in another chapter, but it is well for the teacher to keep in mind the fact that not one step in the whole process of instruction can be discussed intelligently without reference to them. For example, it is quite possible in explaining the nature of the study process to analyze it into three steps: (1) Apprehension, or the act of knowing an individual object, fact, relation, or quality—

the result of this process of thinking being a percept; (2) comprehension, or the act of knowing a thing in relation to other things in its class—the result being a concept; (3) application, or the act of making knowledge available in some definite or practical way. It will be seen that all of these steps are included in the process of apperception, for the apprehension of a new object or experience cannot take place without the aid of related experiences and ideas already in the mind; comprehension includes comparison of old and new ideas, separation of qualities, and classification; while application in its most common form is the process of using our old knowledge to acquire and express new ideas.

No better description of the art of learning has been written than Mr. T. C. Rooper's little book called "A Pot of Green Feathers." "To assimilate, then, a wholly new impression is necessarily a task of some difficulty. . . . If the new impression is not of a nature to make us feel strongly, and if it is isolated and unconnected with any other knowledge present in our minds, it probably passes away quickly and passes into oblivion, just as a little child may take notice of a shooting star on a summer night, and after wondering for a moment thinks of it no more; if, however, our feelings are excited, and if the object which gives the impression remains before us long enough to make the impression strong, then the impression becomes associated with the feelings, the will comes into play, in consequence of which we determine to remember the new impression and to seek an explanation of it. With this object the mind searches its previous stock of ideas more particularly, comparing the new with the old, rejecting the totally unlike and retaining the like or the most like, and in the end it overcomes the obstacle of assimilation and

finds a place for the new along with the old mental stores, thereby enriching itself, consciously or unconsciously—unconsciously in the earlier years, and consciously afterward."

But it must not be inferred that because the mind must always follow certain definite laws in the process of studying, therefore the act of study is a monotonous, unvarying mental effort. The laws of mind are capable of infinite variety of illustration and application. There is also a great variety of subject-matter and there are many points of view which may serve as approaches to any specific lesson. So while it is true, as Sir William Hamilton says, that "the highest function of the mind is nothing higher than comparison," it is equally true that there is a vast difference between the method and the results of the act of comparison of a child and those of a philosopher in observing the same object. The power to study, to learn, to think is of slow growth, and teachers must clearly understand that the manner and method of assigning lessons, the length of the lesson, the requirements as to study, the degree of thoroughness to be expected, the results to be demanded of any class to be reasonable and just must be suited to their age, experience, and ability.

As related to the formal steps of instruction, the study lesson may be said to include the steps of presentation, comparison, and generalization. If the lesson assigned is a set of problems to be solved or sentences to be analyzed, the whole process of the pupil's preparation of the lesson may fall under application.

The subject-matter of text-books consists of (1) facts; (2) definitions, rules, laws, and principles; (3) reasoning from facts; (4) application of rules and principles; (5) drills. Facts must be acquired through perception, mem-

ory, and association; definitions and principles must be approached through induction, which includes comparison, abstraction, judgment, and classification; reasoning from facts involves inference and imagination; application of rules and principles is the process of deduction; drills consist in the intelligent application of principles to specific acts that it is considered worth while to make automatic. Throughout this whole process, feeling and will are present in the form of interest and attention. This work of the pupil is begun in the school as one process. No lessons are assigned, little use is made of the text-book, the teaching is oral, the objective factor is prominent, and all work is done under the immediate direction of the teacher. Gradually, however, the work is divided into two exercises: (1) the study lesson, (2) the recitation. Oral teaching is used less and less; text-book study is more and more required. The change must be gradually made, or pupils become confused, discouraged, and form bad habits of study. Thus teaching refers to the efforts of the instructor to cause pupils to learn; learning is the activity of the pupil in the acquisition of knowledge; while study is the means by which the act of learning is made successful and the act of teaching is made effective. The mental effect of acquiring knowledge by correct methods is discipline. The power to use knowledge accurately, rapidly, and easily is skill.

Difficulties in the Way of Study.—To recognize the great importance of the study lesson and to understand the nature of study are essential to good teaching, but these alone will not make sympathetic teaching. It is possible for the teacher to enter into the study lesson so vitally and helpfully that pupils are conscious of this unity even though the teacher is conducting a recitation or is out of

the room. Indeed, this feeling of unity between teacher and pupils ought not to be confined solely to the recitation and cannot be so confined if the best results are to be secured. The source of this feeling of unity is the sympathy of the teacher with the pupils in their efforts to prepare the lesson as assigned. And no teacher will have such sympathy unless he fully understands the great and real difficulties that beset the pupil in mastering his lesson and acquiring the art of study. It will be helpful to consider briefly a few of these difficulties.

(1) *The Child's Previous Mode of Learning.*—Children acquire a vast amount of knowledge before they enter school. From the hour of their birth they have experiences and come into direct contact with objects. Through these experiences and this direct contact with objects they gradually acquire a store of percepts, images, and crude concepts, and at five years of age have mastered a working vocabulary of from one thousand to two thousand words. Knowledge gained in this way is first-hand, or empirical knowledge, and must serve as the basis of apperceiving all the knowledge they will ever acquire. There is, however, another kind of knowledge, that which is acquired through the oral description or the written accounts of other people. This is second-hand knowledge. Now, when the child enters school he has had five years' experience in the direct study of things, and has also acquired some facility in acquiring second-hand knowledge through listening to stories and the conversation of his elders. But he has had no experience whatever in getting knowledge through books. He must begin at the first. He must begin the mastery of knowledge through symbols. He must conquer a new mode of study. No wonder that his first attempts to study a book are feeble, his steps faltering, and that he

is often discouraged. The sublime courage with which little folks attack the work of mastering the difficulties that fairly jostle each other on the printed page ought to call out the teacher's admiration and sympathy.

Moreover, the transition from the life at home to that of the school is very great, especially when there is no preparatory training in the kindergarten. It is a transition from untrained activity to the restraints of the school-room, from play to regular and systematic work, from individual liberty to social co-operation and the subordination of the personal will to the control of the teacher and the good of the class or school. Feelings must be repressed, impulses must be controlled, preferences must be sacrificed, tasks must be done. To make all these necessary adjustments taxes all the child's powers to the utmost, and calls for the patience, the kindly help, and the fullest sympathy of the teacher.

(2) *The Change from Oral Lessons to Text-book Lessons is too Sudden.*—The method of teaching in the lower grades is by means of oral lessons. Primary teachers are, as a rule, specialists. They frequently do not understand the work of the higher grades and sometimes they do not try to understand it. Hence they take no pains to prepare pupils for the independent study of text-books. Lessons are developed, objects are used, seat work is planned in the third grade just as they were in the first and second grades. As a consequence pupils enter the fourth grade almost totally unprepared for the study of text-books. There they are given books and are told to study their lessons, the very thing that they have not been taught how to do. Is it any wonder that they "mark time," become discouraged, take refuge in the mere senseless memorizing of the words of the book, and form a dislike for books,

teacher, and school? Here are the causes of the first great exodus of pupils from our public schools. In an address before the session of the National Educational Association of 1908, Dr. Andrew Draper said: "When but one-third of the children remain to the end of the elementary course in a country where education is such a universal passion, there is something the matter with the schools."

It is a tremendous fact, and a fact that may justly cause apprehension, that forty per cent. of the children in this country never get beyond the fourth grade in our schools, and go out into life with almost no training in the use of books, deprived of the means of self-culture, and capable of reading only the sensational newspaper or the trashiest kind of literature.

(3) *Text-books in Themselves are No Stimulus to Effort.*—When pupils are set to learning a lesson from a text-book without the assistance of properly assigned lessons, they are at once deprived of all the helps so characteristic of oral teaching. In oral lessons the voice and manner, the emphasis and language of the teacher may all be adapted to the pupils. The teacher calls into play every device and illustration by the use of objects, gestures, drawing, painting, dramatizing to help pupils grasp the thought. But the printed page of the text-book is an unvarying, monotonous stimulus, to which the pupil not trained to study cannot hold his attention without some definite thing to look for. He thus fails to get his lesson, is scolded, ridiculed, kept in, punished, all to no purpose. What he needs are properly assigned work, lessons in how to study, and sympathy.

(4) *Physical Conditions May Hinder Study.*—Impure air, bad light, imperfect heating, a loud-voiced teacher, a disorderly room, uncomfortable seats may make it im-

possible for pupils to hold their thoughts to the study of the book. These factors have been discussed in a preceding chapter.

(5) *Outside Interests and Distractions May Prevent Study.*—Pupils are interested in many things outside of the school-room. They are interested in home duties or pleasures, in games or sports, in story-books and fairy tales, in parties and picnics, in holidays and street life. Some of these interests can be turned to good account by the skilful teacher to serve as approaches to text-book study or illustrations in class work; but for the most part all these varied interests must be banished from the mind of the pupil during the study lesson. In some cases these outside interests may invade the school to such an extent that the entire school is demoralized. An athletic craze or a skating-rink mania or an epidemic of parties has sometimes completely spoiled a term's work.

Such are some of the difficulties that must be overcome by pupils in acquiring studious habits. These difficulties are very real and very great—so great that unless parents wisely co-operate with the school, and unless the teachers realize the nature of these obstacles to study and render pupils proper assistance in overcoming them the right education of the child is impossible.

Conditions of Study.—If the right conditions for study do not exist in the school, the teacher should deliberately set to work to make them right. He should, if necessary, secure the co-operation of the school board in making the physical conditions as favorable as possible. He should endeavor to create a healthy school atmosphere in the community by getting into close touch with the parents by personal visits, patrons' meetings, appropriate exercises at the schools, reports of each pupil's progress, judicious

use of home study, and general oversight of the pupil's home reading through a wise use of the library. Good order and a reasonable degree of quiet, well-assigned lessons, oversight of the pupil's preparation, good teaching in the recitation, kindly encouragement are all prime conditions of study and these are all within the teacher's control. These may be called the objective conditions of study.

On the subjective side there are three main conditions of study:

(1) The pupil must know how to study his lesson. The teacher must make no mistake here by simply assuming that pupils know how to study the lesson; he must know whether they do or not, and if they do not he must show them how.

(2) Interest in the lesson. Interest is that form of intellectual feeling that spurs us on to examine, to inquire, to investigate, to experiment. Natural or primitive interest is the craving of the mind for knowledge, the instinct of the soul for truth; while acquired interest springs out of the stock of ideas which we have already made our own. To arouse the pupil's interest in any lesson, the teacher must discover some point of attachment between the lesson and the pupil's previous experiences and make the pupil conscious of this relationship.

(3) Attention, or will. Interest that is not sustained, and, as it were, constantly recreated, by attention is fugitive and almost valueless in book study. Years ago Rollin declared: "We should never lose sight of this grand principle that *study depends on the will*, and the will does not endure constraint. We can, to be sure, put constraints on the body and make a pupil, however unwilling, stick to his desk, can double his toil by punishment, compel him to finish a task imposed upon him, and with this object we

can deprive him of play and recreation. But is this work of the galley-slave studying? And what remains to the pupil from this kind of study but a hatred of books, of learning, and of masters, often till the end of his days? It is, then, the will that we must draw on our side, and this we must do by gentleness, by friendliness, by persuasion, and, above all, by the allurement of pleasure."

Method of Lesson Study.—Study is not the mere memorizing of the words of the lesson, though this is just what most pupils try to do in preparing a lesson. Perhaps this is why it is said that by the time a pupil leaves school he has already forgotten nine-tenths of what he has been taught. Herbert Spencer would have pupils learn only such facts as are organizable, and, barring some exceptions like English spelling, the rule is a sound one. Organizable facts are those which are connected with other facts by means of thought relations. These facts should be associated together, not in an arbitrary fashion, but by means of their relations, and thoroughly mastered so as to serve as materials for the reasoning powers of the mind to work with. It is such knowledge only that forms a safe basis for the reception and assimilation of fresh knowledge. Real progress in learning is not to be measured by pages, but by what the pupil acquires as a real and permanent possession. "The principal cause of so many dullards is quantity teaching," says Francis Parker. Jacotot has four rules for learning a thing, and Joseph Payne sums up these rules as follows: (1) *Learn* something; that is, learn so as to know thoroughly, perfectly, immovably, as well six months or twelve months hence, as now—*something*—something which fairly represents the subject to be acquired, which contains its essential characteristics. (2) *Repeat* that "something" incessantly every day, or very

frequently from the beginning, without any omission, so that no part may be forgotten. (3) *Reflect* upon the matter thus acquired, so as, by degrees, to make it the possession of the mind as well as of the memory, so that, being appreciated as a whole, and appreciated in its minutest parts, what is as yet unknown may be referred to it and interpreted by it. (4) *Verify*, or test, rules and general statements by comparing them with the facts which you have learnt yourself."

From these rules it is very clear that real study is a serious business. Acquiring knowledge can never be a purely passive matter, and the great value of study is not so much the knowledge gained as the improvement of the powers of attention, comparison, judgment, classification, reasoning, and insight. And this growth of the mind is always the result of a process of apprehending new knowledge by means of old knowledge; so that the correct method of study must ever be the correct interpretation of impressions received from objects and ideas obtained through words, the discovery of their organic relations to each other, and the association of these impressions or ideas with other similar ones already assimilated by the mind.

All helpful rules for lesson study are based upon these principles:

(1) The first step in study should be to get a clear understanding of the subject of the lesson and its relation to previous lessons.

(2) Grasp the main divisions of the lesson and their general relation to each other.

(3) Read the lesson as a whole carefully and connectedly. Hold the mind to the thought without wandering. Seek to grasp the relation of ideas, to connect sentence with sentence, paragraph with paragraph.

(4) Study the lesson in its details. Look up unfamiliar words. Write out definitions. Master the illustrations and think out other similar ones; then write out the principle illustrated. Think of practical applications of the principle.

(5) Review the leading points, repeating definitions and principles. Then write from memory a brief outline of the whole lesson.

How to Help Pupils to Study.—Helping pupils to learn how to study is one of the most necessary and important duties of the teacher. We have stated that no matter how skilfully the lesson may have been assigned, pupils must not be left during the study lesson without supervision. Some reasons for this statement will be considered.

(1) *Physical Conditions Need Constant Readjustment.*—These conditions are variable and therefore need the constant attention of the teacher. Window-curtains need adjustment. The temperature must be regulated. The ventilation requires attention. The physical needs of pupils in regard to fatigue and change of work cannot be ignored. Pupils have their limitations beyond which they cannot go, and any teacher who attempts the impossible is doomed to failure. Teachers should neither omit nor neglect anything, however small, that helps to create an atmosphere of study, tone up the mind, revive the energy, enhance the comfort, increase the vigor, cheer the mood, and brace the will of pupils for their study of the lesson. This power to look after "little things," to foresee conditions, and to plan for results constitutes the very essence of efficient practical school management. To quote from a recent work on "Public School Administration": "The ability of study involving as it does both consecutive attention and concentration of mind, deserves constant over-

sight by all who are responsible for the progress of school work. Every study period, whether in primary or grammar school, should be supervised by the teacher. Even though he may have to perform some other work, he should have prepared the class for their study in such a way that they know just what to do and how to do it."

(2) *The Plan of Work Must Be Clear.*—The aim and plan of the lesson must be perfectly clear to the pupils. For younger pupils the aim may be written on the board in the form of a question, and specific directions should be given as to the manner of preparing the lesson. Some questions may call for written answers or illustrations by means of drawing, painting, maps, and handwork; for such work helps to hold the pupil's attention to the lesson and aids him in gleaning the thought from the printed page. Seat work in the form of copying, paraphrasing, and the like, just for the sake of keeping pupils busy, should not be tolerated.

For older pupils study topics may be used in the place of questions, and as they grow in power of attention and self-control outlines may be used. Finally, the pupil will be able to make his own outlines and formulate his own questions, and will have so far mastered the art of study that he can hold his mind to the lesson without any external aids. Thus it is that teachers by training pupils in right habits of study develop their powers of self-help and self-culture until they become independent workers. This is what Dr. Schaeffer meant when he said: "The aim of the teacher should be to make himself useless."

The teacher should realize that the help given to pupils during the study lesson should vary with the age, ability, and experience of the pupils, with the nature of the subject, the character of the text-book, and the purpose of the les-

son. Great care must be taken not to assign pupils more work than they can do well during the study period. The habit of successful and complete preparation must be encouraged. As soon as fatigue and a sense of worry begin with young pupils the real value of the study lesson ceases and rest or a change of work is needed.

(3) *No Interruption of the Study Lesson Should Be Tolerated.*—The teacher who does not see to it that all the needs of pupils are supplied before the study lesson begins is lacking in foresight and managing power. Unless this is done frequent interruptions of the study period occur through the thoughtlessness of some pupils in the class, and these disturbances spoil the work of the whole class. Before the signal for the study of the lesson is given, pencils should be ready for use; paper provided; books, not needed, removed from the desk; necessary physical needs attended to; questions answered. Pupils should understand once for all that after the study lesson has begun there will be no opportunity to ask questions, borrow materials of any kind, sharpen pencils, get a drink, or change work. Of course, unusual circumstances may arise that will demand immediate adjustment, but ordinarily no interruption of the study lesson should be permitted. Only in this way will pupils learn to appreciate the value and sacredness of the study period. As Arnold Tompkins says: "If the teacher has carefully provided for all the pupil's wants, there can be no necessity for giving him attention now. To stop the recitation to answer his question is to give the time of the twenty in the class to the one. He has no right to break the unity between the teacher and the class. If he finds now that he needs a pencil, to supply him would cultivate a want of foresight; and by to-morrow he will want both pencil

and book. He cannot get the pencil during the study time without breaking up the whole school, for a moment at least." Thus the child's feeble power of voluntary attention to the study of the text-book must be wisely guarded from all "invading influences." So much is the child the slave of his senses that he must be protected from sights and sounds while he is trying to learn the difficult art of connected thinking and sustained attention to the lesson in hand.

(4) *Study With the Pupils.*—"Come and let me show you how," says Dr. James, "is an incomparably better stimulus than 'Go and do it as the book directs.'" Quite frequently the whole class period may profitably be given over to studying *with* the pupils, not *for* them. This is especially true in introducing new topics or when the difficulties in the text-book are unusual. Pupils should not be left to meet these difficulties unaided, if there is every reason to expect that their efforts will end in defeat for all except the chosen few. Making the pupils his fellow-workers in the study of a lesson has a stimulating effect upon the class. It reveals the teacher to them as a searcher for truth. The manner of attacking the lesson serves the pupil as a model in his next attempts at independent study. It is a helpful lesson in teaching the art of study. In such a study exercise the teacher can show how to get at the right meaning of words, how to pick out the leading thoughts, how to discover organic relations, how to construct a good definition, how to guard against hasty inferences, how to make use of old knowledge in the study of the lesson, how to apply what is learned to the ordinary affairs of life. The pupils should leave such a co-operative study of the lesson with an added thirst for knowledge, a sense of power, a greater respect for the subject and the

teacher, and a higher ideal of study. It must never be forgotten that the teacher sets up the ideals of the school—ideals of order, of conduct, of thoroughness of study. Toward these ideals the pupils working with the teacher are ever striving, ever advancing.

(5) *Teach the Art of Study Through Practice in Study.*—The art of study, like every other art, is learned through practice—not unregulated, half-hearted, hap-hazard, spasmodic practice, but through wisely directed, continuous, whole-minded work under the inspiration of correct ideals. "One of the first duties of the teacher," says Roark, "is to show the pupil how to prepare a lesson—how to direct effort and to economize time; how to exert thought power and to question himself and his text-book while he is studying; and especially how to *enjoy* the processes of learning facts and understanding them."

Pupils must be trained in the use of study helps. Very many pupils even in the high school do not know how to use the dictionary helpfully. This work should not be begun until the fourth grade, and must not be overdone, but definite pains should be taken to train pupils how to get the meaning of words from their context; how to find words readily in the dictionary and how to select the right word from many synonyms; how to trace the etymology of words; and the leading suffixes and most important roots should be memorized. Few reference books should be used in the lower grades, since the pupil is not able to account for the seeming discrepancies between the different books on the same subject. But as pupils gain power to master books and greater maturity of judgment they must be trained in the use of reference books and the sifting of evidence, and encouraged to make a constant use of the library as a means of self-instruction.

The problem of capturing the pupil's interest and holding his attention to the study lesson is always present and always vital. Here the personal relations between the teacher and pupils are of the greatest importance. Older pupils *may* study from a sense of duty, but young pupils who dislike the teacher will seldom like their lessons or their school. It is of the greatest moment that teachers should seek to win the confidence and affection of young pupils. Children do their best when encouraged by hope and love; they are at their worst intellectually and morally when depressed by fear and a lack of sympathy. The teacher must strive to make the school a pleasant place for the child, must respect his feelings, encourage him to express his real and best self, call out his interests and turn these interests into profitable channels. Rooper says: "It is a useful hint to study the children's own lead and follow it. School necessarily limits the child's life. You cannot bring all creation into the four walls of the class-room. But what you lose in extent you gain in depth; you lose variety, you gain in concentration. Before school-time all things engage the child's attention in turns and nothing long. At school he has to attend to a few things, and to keep his attention fixed upon them for short periods at first but for increasingly longer ones. It is a matter of practice and experience to find what things most readily arrest attention, and in what way information can best be conveyed so as to arrest attention, and it is in these matters that the skill of the teacher comes in."

It is of very little avail to hold up to young children incentives to study that are remote in time and more complex than they can comprehend, such as would appeal to older pupils. The art of study cannot be taught by rules and exhortations. What the pupil needs in his first at-

tempts at study is that the teacher go with him, aid him in his task, throw light on the dark places, praise him when he does well, help him up when he falls, encourage him when he loses heart. Only by such help can the majority of pupils be saved from waste of time, dawdling over lessons, failure in recitation, aversion to study, and indifference to acquiring an education.

Home study should be judiciously assigned. The conditions in many homes are such that effective study is quite impossible. The kind of work so assigned should receive especial consideration. Probably the poorest lessons for home study are arithmetic and grammar lessons; history, supplementary reading, and library work are much better. Home study may be made a means of interesting parents in the school work of their children, and such work may be suggested only, not required. In New York City the Board of Superintendents recommends that the time given to home study should be restricted to one hour a day in years one to six, and to one and one-half in years seven and eight.

(6) *Help Pupils to Formulate Rules for Study.*—The last stage in teaching the art of study may very properly consist in developing certain helpful rules and principles of mental application. Under the careful guidance of the teacher, the pupils have all along practised these rules and, no doubt, some of the most important rules have already been formulated by the more thoughtful members of the class. Having thus mastered the art of study by practice under intelligent guidance, and having formulated the principles on which the art is based, and having acquired a permanent interest in science, history, literature, and art, pupils are, at last, fairly independent of teachers, for they are able to teach themselves.

SUGGESTED READINGS

Hinsdale, "Art of Study," chaps. IV, VI, VII, IX, X, XVIII; Dutton, "School Management," chap. XIII; Hamilton, "The Recitation," chap. III; Bagley, "Classroom Management," pp. 206–210; Tompkins, "School Management," pp. 133–141; Ogden, "Art of Teaching," chap. II; Perry, "The Management of a City School," pp. 205–214; Wickersham, "School Economy," pp. 119–175; Earhart, "Teaching Children to Study," chap. VIII; McMurry, "How to Study and Teaching How to Study."

CHAPTER XXI

METHOD IN TEACHING THE LESSON

Is There a Typical Method of Teaching?—The young teacher is bewildered by the number and diversity of the factors that enter into the problem of instruction. Teaching a class of restless, wide-awake boys and girls is a very practical affair. It is a time for action. There is no chance to theorize. To "get the ear" of the audience the lesson must be suited to the class. In its presentation the teacher must conform to the laws that control the development of the mind. No real success is possible unless the pupil's consciousness is actively engaged in the process of learning. So it matters little what the course of study may be, or the subject, or the lesson, or the aim and plan of the lesson; if all these are not adapted to the age, the experience, and the capacity of the individuals composing the class, they are all alike fruitless; hence most teachers work very hard all through the recitation to adapt their instruction to the class before them. The degree in which they succeed in this adaptation is the measure of their success. A few gifted teachers seem to divine the right method of procedure almost intuitively; other would-be teachers never learn it and are failures; while the great majority of successful teachers discover the way through study, observation, and practice.

To all students of the art of teaching the question of method is a very important one. To the novice it seems

that the method of teaching must change with the subject taught, the age of the pupils, the environment of the schools, the text-book in use, and that there are no certain rules or general laws to guide the teacher through the maze of difficulties. But the teacher who studies the problem of method carefully soon comes to realize that there are certain fundamental principles underlying all method. In time it dawns upon him that in spite of all the diversity of subject-matter, text-books, school surroundings, and teaching devices, in spite of all the differences in age, acquirement, and individuality of pupils, there is a truly typical method of teaching which is, in the main, constant and capable of being adapted to nearly all subjects and classes. And this is so because the major movements of the mind are common to all learners and because the fundamental laws of teaching, based as they are on the nature of the mind, are valid for all subjects and find application in every recitation.

Meaning of Method.—Sir William Hamilton says: "All method is a rational progress toward a definite end." Method, then, is the process of reaching a definite end by the wise use of a series of related acts which tend to secure that end.

As applied to class teaching, method is the series of related and progressive acts used by the teacher to accomplish the specific aim of the lesson. Method in teaching implies a definite lesson aim. Where there is no such aim, there can be no method.

To be rational, method in teaching must be based upon the fundamental laws of mind. To be logical and progressive, there must be a correct arrangement, sequence, and correlation of all the acts and means employed by the teacher in reaching the aim. To be effective, method must

accomplish the aim set up at the beginning of the recitation. To be consistent, method must remain the same throughout the recitation, or as long as the lesson aim remains the same. As a complete process, method in instruction must include (1) observation of particular concrete objects, qualities, facts, or relations; (2) comparison of the data observed and a clear perception of the qualities that are common to a class; (3) induction proper, or the formulation of a definition, law, or general truth based upon these common qualities; (4) deduction or the application of rules, laws, and principles to particular cases.

It will mark a great advance in our American schools when these simple principles shall be applied in practice, for in no other department of educational theory has there been such hopeless confusion of thought as in the realm of so-called "methods." Until very recently the term "methods" has been applied quite indiscriminately, not only to the more important phases of the teaching process, but also to the petty devices and expedients used by the teacher and to the manifold forms which the recitation may assume in its forward movement. And so we have a bewildering array of general and special methods; primary methods, grade methods, and high-school methods; Pollard method, Ward method, and Aldine method; Grube method and Speer method; history and science methods.

A popular work on school management has the following classification:

CLASS METHODS	CLASS DEVICES
1. Unity method.	1. The class.
2. Individual method.	2. Written work.
3. Investigation method.	3. Laboratory work.

CLASS METHODS	CLASS DEVICES
4. Teaching-question method.	4. Outline work.
5. Conversation method.	5. Reporting work.
6. Topic method.	6. Teaching work.
7. Discussion method.	7. Concert work.
8. Lecture method.	8. Original class devices.

Now, it is perfectly evident that there is no clear principle of division between methods and devices in the above outline.

Even Dr. C. A. McMurry in his excellent book, "The Method of the Recitation," contradicts the title of his own book when he asserts: "In the main, most subjects are treated according to one of three methods, namely, according to the lecture, the text-book, or the developing method." Now these three forms of the recitation should not be considered as independent methods. They are simply three different phases, or aspects, of one method. The teacher may make use of all these phases in the same recitation, may use now one then another, but this does not mean that every such change is a change of method. Method in teaching is not determined by such mechanical and external forms of procedure as using a text-book or not using a text-book, questioning by the teacher or lecturing by the teacher, oral work or written work. All these are merely the different forms that the recitation may assume in its progress toward the realization of the lesson aim. The recitation should be considered as a concrete, definite exercise with a specific aim to be attained by a series of logically related acts on the teacher's part which call forth correspondingly related mental processes and physical acts on the part of the pupils, all tending to accomplish this aim. Thus method in teaching depends upon the nature of the

child's mental processes as expressed in the fundamental laws of teaching.

The Lesson Aim.—Elsewhere we have shown that the law of aim applies to all teaching, and that there is, in fact, no such thing as method in the recitation without some aim in view. This law implies that in order to accomplish the most effective work the pupils as well as the teacher must keep the lesson aim in mind, must consciously work toward it during their study lesson, must strive together to realize it in the recitation, and must know when they have attained it. Such an aim, it has been shown, becomes the pupil's guide in his search for knowledge; but if it is to be such a guide, it must be stated so clearly, concretely, and attractively that it appeals to him as a definite thing to be done, a problem to be solved, a principle to be mastered and applied. The lesson aim should be stated briefly and simply. It may take the form of a sentence, setting forth the work to be done during the recitation. It may be a single question which serves to turn the thought of the class in a definite direction. It may be the application of some rule or definition or principle, previously mastered, to new cases, facts, and problems. In stating the aim a set form of words should be avoided. While the lesson aim must bear a close relation to the pupil's previous knowledge of the subject, it should suggest something new. There should be no "beating around the bush," no guessing game to dissipate the pupil's interest and attention, for the aim should serve to focus the pupil's mind upon the subject, call up many of his old related ideas, arouse him to effort in preparing his lesson, keep the teacher and pupil from wandering during the recitation, and serve as a definite standard by which to estimate the value of questions and answers, devices and illustrations,

and all the other means used to realize the specific aim of each lesson.

What is Implied in the Proper Statement of the Lesson Aim.—The proper statement of the lesson aim is a difficult matter, for it implies very much in the way of general preparation as well as accurate and specific information on the part of the teacher. The teacher must understand the course of study as a whole. Then he must be able to arrange all the material included in the course into related groups of knowledge fitted for the pupils in a certain stage of development. Next he must think his way clearly through each subject that he is to teach and comprehend the relation of one part to another. And, finally, he must divide the portion of each subject that is to be presented to his own special class into definite smaller wholes to be mastered separately by the pupils. Such connected portions of any subject are called "method-wholes," or "method-units." Each of these method-units must embody a single general truth. To master and apply this general truth is the work of the pupil. This method-whole is not so many pages of the book or so many exercises to be worked out. It is a portion of subject-matter requiring for its mastery by the pupil a complete process of observation, comparison, abstraction, and generalization. This process may in some cases require the time of one recitation only; but usually the mastery of the method-whole will require more than one recitation period, and may require the work of many recitations. Therefore it is often necessary that the teacher shall divide the method-whole into smaller portions called lessons, each with its distinct aim. And this lesson aim as compared with the aim of the method-whole is a subordinate one, or a sub-aim that can be realized in a single recitation period.

This distinction must be kept in view, otherwise the teacher will be in danger of attempting to run through all the five steps in instruction in every recitation period. To attempt to do this is to totally misapprehend the whole process of instruction.

From this discussion it is obvious that in order to apprehend clearly the aim of each lesson and state it properly, the teacher must: (1) Grasp the scope and meaning of the course of study; (2) be able to analyze the material of the course of study into definite method-wholes and lesson-units; (3) know the contents of the pupils' minds, their mental capital, interests, and stage of growth; (4) understand the mental processes involved in the act of mastering a general truth; (5) be able to plan the lesson in accordance with the fundamental laws of teaching.

The Formal Steps, or Stages, in the Process of Instruction.—Herbart's steps in instruction, as they have been worked out by his followers, constitute the most consistent and helpful attempt yet made to reduce the processes involved in instruction to a psychological basis.

These steps have been given various names by different writers, though the terms used by Herbart are: (1) Clearness; (2) Association; (3) System; (4) Method. Among American writers the steps are quite generally known as (1) Preparation; (2) Presentation; (3) Comparison; (4) Generalization; (5) Application. Some writers include the last three steps under the general head of elaboration. The first four steps are mainly inductive.

These so-called "formal steps" do not form a straitjacket to fetter the individuality of the teacher, as some critics seem to think; nor, on the other hand, are they a procrustean bed on which every recitation is to be stretched, for lessons consisting of arbitrary facts or unrelated ideas

cannot be taught in this way. Like all general principles, they admit of great variety in their application to details. They do not solve all the problems of method, but they do serve as a standard by which the teacher can measure the correctness of his daily practice, and, once mastered, they contribute very much to the teacher's skill, power, and success in instruction. It is a misnomer to speak of the "five steps in the recitation," for very often the whole recitation must consist of one or two steps only. Many consecutive lessons may consist of the fifth step alone.

The Formal Steps as Applied to the Development Lesson. —In chapter XX it was shown that oral lessons must be the chief means of instruction in the lower grades, and that as the pupil advances in the course, oral instruction should decrease, while book study should increase. There are two ways of acquiring the materials of knowledge: (1) By experience and observation; (2) by authority. As we have already stated, knowledge which is the result of experience and observation is called first-hand knowledge, because in these processes the objects studied are brought into direct contact with the mind of the learner. On the other hand, knowledge acquired by authority is called second-hand knowledge, because the objects of study are not brought into direct contact with the learner's mind, but are presented indirectly by the use of symbols, such as spoken words, pictures, maps, charts, drawings, and the printed page.

At first the child is a ceaseless experimenter and a keen observer, and thus, even before he enters school he has acquired a great body of first-hand knowledge that serves him as a basis for acquiring knowledge through the use of symbols. To give him a mastery of these symbols and to

prepare him to appreciate and make alive and real the facts gained by authority are the aims of oral instruction.

Oral lessons should be mainly inductive, not dogmatic. They should be based on the pupil's experience and observation, not upon authority. They should be conversational and should never degenerate into a mere talking exercise on the part of the teacher. Thus oral instruction should develop in the pupil the power to make correct inferences, both inductively and deductively, from facts derived chiefly through his own experience and observation. Only thus is he prepared to use text-books intelligently and to vitalize knowledge acquired from the printed page. The ability of the pupil to understand the words or other symbols used in acquiring knowledge by authority depends upon his power to interpret such words and symbols into vivid images in terms of his own past experiences. But to insist that pupils must acquire all their knowledge, even in the lower grades, through actual experience and a process of rediscovery is absurd, for only a very small portion of the whole circle of knowledge can come within the range of the pupil's personal experience and observation. The formal steps in instruction apply with special emphasis to the teaching of oral development lessons in which the aim is a definition, a rule, a process, or a more inclusive judgment. The first formal step in the process of instruction is Preparation.

I. **Preparation, or Introduction.**—Preparation as used here must not be confused with the preparation of the lesson from a text-book. When applied to the recitation, the word means the preparation of the pupil's mind to receive the new ideas which the teacher proposes to present. The only way to do this is to establish points of connection between the new ideas to be presented, as foreshadowed

in the statement of the aim of the lesson, and the old related ideas which the pupils have already acquired. These ideas have been acquired by the pupil from many different sources, both in school and out of school, from his books, his games, his excursions, his home life, his entire experience.

We have emphasized the importance of the lesson aim. The statement of the aim should come before the preparatory step, as otherwise the pupils do not know what the purpose of the teacher's questions is, and the exercise degenerates into a game of guessing. "If the aim of the lesson has been rightly put," says Rein, "it produces a flood of thoughts in the pupil at once." But not all of these thoughts are closely related to the lesson aim, and these unrelated thoughts must be kept in the background, since it is only those thoughts that are closely related to the new ideas that are to be presented that are wanted. It is by means of these old related ideas that the pupil is able to grasp and assimilate the new ideas of the lesson. Unless these old related ideas are prominent in his consciousness he may (1) feel no interest in the new ideas, and consequently no desire to make them his permanent possession; (2) may utterly fail to understand them when presented; (3) may wholly or partially misunderstand them.

The laws of teaching prominent in this step are those of aim, apperception, and interest. The teacher's chief means of aiding the pupils here are: (1) By a clear statement of the lesson aim; (2) by suggestive general questions, sparingly used, to stimulate and direct the thought of the whole class; (3) by encouraging freedom of expression from the pupils and drawing out their out-of-school experiences; (4) by ruling out ideas foreign to the subject and keeping the minds of the pupils fixed on the aim; (5) by presenting no new material during this step;

(6) by requiring different members of the class to give a summary of the ideas suggested by the class.

To these teaching acts the pupils must respond: (1) By giving the teacher prompt and willing attention; (2) by calling up as many ideas as possible which are closely related to the aim of the lesson; (3) by expressing their ideas freely. In calling up his past experiences and stating them it is evident that the pupil must exercise his memory and his power of oral expression; and since he is required to examine his whole mental content and separate a certain class of ideas from all others, the process involves discrimination and analysis as well as constant comparison of his ideas with the lesson aim.

The purpose of this preparatory step is accomplished when the teacher has succeeded in drawing forth from the stock of ideas possessed by the pupils those related ideas which must be used by them in apprehending and assimilating the new ideas to be presented in the second step.

The step of preparation should stir up expectation and interest in the class, quicken their thinking, afford a review of their past lessons, and in a word prepare the soil of the pupil's mind for the reception of the seed now ready to be sown.

As a rule the time required for this first step should not exceed one-fourth of the time of the recitation. In a series of closely connected lessons, the mere restatement of the aim may be sufficient, while in beginning a new method-whole, the preparatory step may well occupy the entire time of one recitation, to be followed in succeeding recitations by the other steps.

II. **Presentation, or Acquisition.**—This step is called presentation because in it the new ideas of the lesson are presented to the class. It emphasizes the second factor

in apperception, as preparation emphasizes the first, for the process of apperception requires new ideas as well as old ones. Preparation involves analysis; presentation is mainly synthetic. Presentation deals chiefly with percepts and images. Its purpose is to bring the new subject-matter of the lesson into such vital relation with the pupil's old related knowledge that the new will fuse with the old and become permanently welded to it. We do not fully understand the process by which such a presentation of new objects and ideas to the pupil's mind results in the acquisition of knowledge, but we do know that such acquisition is possible only when the pupil's mind has a working capital of old ideas which are closely related to the new ideas presented, and that "the young mind puts out its tentacles," so to speak, and appropriates these new ideas. In order to accomplish this result three things are requisite in the presentation of the new ideas.

(1) *The Laws of Teaching Must Be Observed.*—The laws of teaching especially prominent in the step of presentation are those of aim, sense-impression, motor reaction, self-activity, apperception, interest, and attention. These laws have been fully discussed in another place and should be reviewed here.

(2) *The Appropriate Powers of the Pupil Must Be Appealed to.*—There is a great deal of truth in the statement of Charles Kingsley that "children once used to learn a lesson and say it to the teacher, whereas nowadays the teacher learns the lesson and says it to the children." Talking teachers seldom have thoughtful pupils, for such teachers are constantly violating the laws of teaching. All the powers of the child should be called into action during the recitation, for only by the constant use of all his powers can he be completely and harmoniously de-

veloped. The step of presentation appeals particularly to the pupil's senses and perceptive activities, his imaging power, his motor activities, his interest, curiosity, and objective attention, and his power of inference. To arouse these powers fully and direct them all toward the aim of the lesson and to put pupils into possession of sufficient data, clearly understood and vividly imaged, to enable them through comparison and inference to arrive at a definition, law, or important judgment are the great purposes of presentation. Talking about the lesson will not do this. Requiring pupils to repeat the words of another will not do it. The teacher must require pupils to use their own senses and power of observation, create vivid pictures, discover thought relations, infer causes from effects, foresee results, experiment, question, and put their thoughts into some form of expression or there will be little growth in knowledge, power, and skill.

(3) *The Work of the Pupils Must Dovetail with That of the Teacher.*—The chief means used by the teacher as stimuli in this step are: (1) Teaching, or developing questions; (2) the use of objects, either bringing them into the school-room or taking the children to the objects; (3) illustrations by means of charts, maps, pictures, views, slides; (4) the use of the pupil's motor activities through drawing, painting, dramatizing, cutting, making, modelling, and all forms of handwork; (5) appropriate details in the form of explanations, stories, legends, and descriptions; (6) calling frequently for summaries and recapitulations.

The responses of the pupils must at every step dovetail with these stimuli used by the teacher. There must be no distractions, no wandering from the subject, no guessing, no foolish answers, no superficial perception, no haziness

of images. The mental activity of each pupil in the class must correspond to the external means, or stimuli, used by the teacher to arouse and direct their thinking. Under the spur of interest and the strong natural tendency to react in an appropriate manner to every sensory stimulus, the pupils should lose all sense of embarrassment and self-consciousness, and give themselves heartily to the work. They should be so entirely natural and fearless as to undertake anything suggested by the teacher in the way of dramatizing, drawing, painting, modelling, cutting, and making. Thus teacher and pupils think and feel and work together, and the stream of thought grows broader and deeper as the recitation moves onward.

The subject-matter of the lesson must be presented in an orderly, connected manner, according to a well-arranged plan. It should be presented as clearly and vividly as possible and from different points of view. The teacher's language should be simple, direct, clear, graphic, and always free from slang and coarseness. The manner of presentation should be earnest, interesting, enthusiastic, sincere, and convincing.

Usually the subject-matter presented in this step contains certain well-defined parts, and the mastery of these parts in order affords opportunities for frequent short summaries or reviews of the work already presented. Such reviews are a very effective means of emphasizing the main points in the lesson, clearing up misapprehensions, supplying omissions, arranging in a more orderly sequence the thoughts already developed, and requiring pupils to reflect on the details which they have absorbed.

The questions should be put in such a mannner as to require every pupil in the class to think the answer, and the co-operation of the entire class must be insisted upon

at every step of the presentation. In other words, the teacher should see to it that every pupil responds appropriately to every stimulus used.

It is not possible for the teacher to take time to develop every point in this step. Many facts should be told outright. Besides, there are parts of every subject that cannot be developed inductively. English spelling defies all laws of logic. No amount of Socratic questioning will develop the fact matter in history or make a boy master of the multiplication table or conquer the absurdities of our system of weights and measures.

The law of apperception applies throughout the entire step of presentation, for the new ideas presented help to clear up, broaden, complete, and vivify the old ideas called up in step one. When these old ideas and the new ideas presented in step two are both prominent in consciousness the pupil's mind is prepared for the third step in instruction.

III. **Comparison, or Association.**—We have said that all through the step of presentation the process of apperception has been active, but the process has been imperfect, and in some cases entirely erroneous impressions have been received and wrong judgments have been formed. No matter how vivid the ideas and images in the pupil's mind may be, instruction should not stop with presentation. These new ideas must be sifted, arranged, compared with one another and with the old ideas in the pupil's mind; likenesses and differences between them must be discovered and permanent thought relations must be established among them if they are to become a valuable and permanent part of the pupil's knowledge. This step is called comparison, or association.

Comparison is the fundamental process in all thinking.

In chapter XI we described the three stages in thought. These stages are conception, judgment, and reasoning. Where the materials compared are sensations, percepts, and images, the result of the act of comparison is a minor concept or some particular judgment. In the second stage of thought, concepts are compared and a larger concept or a more inclusive judgment is reached; while in the third stage of thought the mind compares two judgments and from their relation to each other derives a new judgment. Thus comparison is present in every stage of the thinking process, and this step in instruction is second in importance to no other.

The laws of teaching especially involved in this step are self-activity, sense-perception, interest, apperception. The powers appealed to are perception, memory, comparison, abstraction, and judgment. The work of the teacher is to suggest standards of comparison and correct units of measure, to help pupils to distinguish superficial qualities from essential ones, to see that the conclusions of the pupils are based upon actual comparison and judgment, to encourage pupils to correct their own false conclusions by closer attention to details and a re-examination of materials, and to connect ideas by the higher thought relations of similarity, design, cause and effect rather than by mere contiguity in time and space.

The laws of the association of ideas are based upon fundamental facts. These facts are that ideas tend to group themselves together in the mind by means of definite thought relations, and that any one of the ideas in such a group tends to suggest the others. Related ideas flock together as "birds of a feather" are said to do. The purpose of comparison is to discover thought relations between ideas, and to associate similar ideas with each

other, causes with effects, parts with wholes, so that these ideas may be easily retained in the memory. Great care should be taken by the teacher that pupils may find out for themselves these thought relations, use their own standards of comparing and measuring, and feel the joy of original discovery. Such a process requires time, and the teacher must beware of hurrying pupils in this step.

In all judging and reasoning, units of comparison are necessary. These units are acquired at first through perception and actual experience. To furnish pupils with accurate, definite units of comparison in the various branches of study is a most important part of the work of early education. These units serve the pupil as standards by which he measures all new ideas. Accuracy of judgment depends upon having accurate units of comparison and knowing how to apply them. Thus there are fixed standards of value, size, weight, color, taste, and conduct. These standards are expressed in definitions, tables, rules, maxims, laws, proverbs. In comparison the pupil measures the new ideas presented to him by means of these old standards, notes agreements and differences, picks out the essential qualities and rejects the unessential, and thus centres the attention on a few important qualities that are common to a class. This stage of thought marks the end of the third step.

IV. **Generalization, or Classification.**—At the conclusion of step three the pupils, under the guidance of the teacher, should have acquired sufficient data and discovered a sufficient number of common qualities to enable them to infer a general law, definition, or rule, and to formulate it in words. This is generalization, and is the crowning act in inductive thinking. This general truth should constitute the answer to the problem proposed in

the aim of the lesson. This truth has been hidden in a mass of concrete facts, and it is the purpose of the first four steps to bring it clearly to view. If the work has been well done, this general truth has been approached so naturally and so gradually that pupils readily grasp its meaning and are able to express it clearly. The teacher must see that they do this, and no matter how crude the first statements of the pupil may be, the teacher must not "put the words into his mouth" nor permit him to hide behind the excuse that he "knows it but cannot tell it." Inability to express a truth in words is nearly always due to a lack of clear ideas.

The laws of induction, aim, and self-activity are prominent here. The pupil's powers of inference, imagination, reasoning, and expression must be active. The teacher should require clear, definite, concise statements of the central truth, correct any misconceptions by retracing briefly the preceding steps, criticise incomplete statements, require a better statement on the part of the pupil, and encourage pupils to verify their conclusions. Any definition or statement that the pupil makes for himself is better than one committed out of hand from the book. Agassiz said: "The poorest service you can render a pupil is to give him a ready-made definition."

General truths acquired in the manner outlined in these steps become the permanent possession of the pupil. They are the keys that unlock for him the doors of the temple of truth. They are of broad application; they serve as the means of apperceiving new ideas; they serve as units of comparison and classification. Of course the character and breadth of the generalizations reached in any recitation vary greatly with the age and advancement of the pupils. It is absurd to expect little children to

reason like philosophers or to master in a few lessons great principles and laws that a Newton or an Agassiz required a lifetime to formulate. A truth, a judgment, or a law may be general as applied to one set of facts, but may itself be included under a more comprehensive judgment. Whatever the generalization may be, it should be capable of immediate application by the pupils.

V. **Application, or Deduction.**—So far the method of instruction here outlined has been mainly inductive. Step by step the pupils have thought their way from percepts to a concept; from a number of different objects with very many resemblances and differences to a definition including only such qualities as are common and essential to the whole group; from a mass of apparently isolated facts to a law that connects them all; from particular cases that are seemingly dissimilar to a principle of unity based on their common characteristics. But as soon as these definitions, concepts, laws, or principles have been acquired by the pupil inductively, he must reverse the direction of his thinking and apply them to concrete cases, particular facts, events, and relations. This is deduction and constitutes the fifth and final step in instruction. It cannot be too strongly emphasized that this fifth step is just as necessary as any of the preceding ones. Instruction is not complete without it. To omit it is like building a beautiful palace and leaving the most important room unfinished, or like stopping midway on a journey to secure a rich treasure. Indeed the mere acquisition of definitions, laws, rules, and principles without constantly applying them to the facts of one's actual environment and the needs of daily life produces a form of helplessness, inefficiency, and positive stupidity not unlike that of the abuse of the old scholastic philosophy.

Many critics of the formal steps totally ignore the fact that the process of instruction is not complete at the end of the fourth step—that the fifth step is just as much a part of the process as the first or second. Bagley forgets this step when he says: "But not all the laws, principles, and definitions with which the pupil must become familiar are amenable to treatment by the inductive method. Many must be given outright; others are to be derived deductively from still larger principles. The error of the Herbartians has been to assume that the formal steps represent the sum total of the technique of teaching. Such an assumption is both illogical and impractical." Such a criticism assumes that the formal steps make no provision for deduction. To remedy this assumed defect in the formal steps, Dr. Bagley suggests the "Deductive Development Lesson," consisting of four steps: (1) The Data; (2) Principles; (3) The Inference; (4) The Verification. But his treatment of the data is only a review of the step of comparison, and unless his "principles" have been acquired inductively by the pupils the whole plan is worthless. As a matter of fact, his so-called "deductive development lesson" is simply the fifth step in instruction.

In some respects this fifth step is the most important one in the whole process of instruction. Many students learn high-sounding phrases, memorize formulas in arithmetic and algebra, glibly repeat important principles in science, wise maxims in history, and lofty rules of ethics who can neither illustrate nor apply them, nor even suggest the data from which they are derived. A definition can have very little meaning to a pupil until he applies it to concrete cases. The law of gravitation is little more to the pupil than a dead formula until he learns to trace its application in descending rain and flowing rivers, in ebbing tides and

falling bodies. The operations and applications of percentage will mean little more to the student than senseless juggling with figures, unless he sees that they are merely new ways of applying the principles that he learned in multiplication and fractions.

This step of application, or deduction, affords a natural and varied means of reviewing old knowledge; it reveals the relation of knowledge gained in school to the needs of daily life; it brings to light any defects or weakness in the pupil's knowledge by putting it to the test of use. Such application is a constant incentive to experiment, expression through action, and original discovery through which pupils acquire the sense of conscious power and the mastery of things. Application also offers the best opportunity for the direct cultivation of the will and the conversion of knowledge into power and skill through rational and persistent drill work.

As to the form that application may take, there is endless variety if the teacher has the skill to encourage and direct pupils in turning their knowledge to account as fast as they acquire it. The knowledge gained in one lesson should find immediate application in learning the next lessons. Definitions and rules in language and grammar should be immediately and consistently applied to the pupil's oral and written discourse. Tables and principles learned in arithmetic lessons must find constant application in actual measuring, weighing, valuing, and making, and to the solution of new problems. The pupil's mastery of geographical facts should be turned to account in explaining the physical features, climate, products, and occupations of his own neighborhood and country. Laws of hygiene should find their application in the care of the school-room, the seating, lighting, care of the eyes, and in

the pupil's care of his own body. The application of the moral ideals, maxims, and percepts gleaned from literature, biography, and history should inspire pupils to better daily conduct and nobler living. Thus in the immediate application of these general truths knowledge becomes power and culture is wedded to utility.

All the laws of teaching except the law of induction find their application in this fifth step. The laws of deduction, apperception, motor reaction, and habit-forming are especially prominent.

In this entire discussion of the five steps in instruction the respective functions of pupil and teacher have been emphasized. The teacher's function is to select lessons, choose materials, form plans, determine method of procedure, select means to achieve the aim in view, direct the form of the recitation, lead and inspire the efforts of the pupils, and secure the highest degree of activity on the part of the pupil. It is the function of the pupils to give sustained attention to the work in hand, to keep the lesson aim in mind, to prepare the lesson just as assigned, to obey directions promptly, to take suggestions kindly, to answer freely, and to respond in kind to every stimulus used by the teacher to further the work of instruction. "The general principle of all instruction," says Compayré, "is that there ought to be a constant co-operation between pupil and teacher; the activity of the teacher is valuable only as it provokes the corresponding activity of the pupil."

Application of the Steps in Instruction to Text-book Lessons.—Very much of the misapprehension in this country in regard to the formal steps in instruction is due to the fact that critics of these steps make no distinction between German schools and American schools. The

formal steps in instruction were first worked out by German teachers to fit the needs of German schools. In Germany the study lesson is the most important exercise; in America the recitation is the prominent feature in instruction. In German schools the text-book is used very little, except for reference and for additional information after definitions, laws, and rules have been developed in the study lesson. In this country, above the third grade, text-books are used extensively in the pupil's preparation of his lesson. In German schools the teachers are trained for their work, are much more closely supervised, and are less free to experiment on pupils than they are in America. In our primary work, where the oral development lessons must be used as the chief means of instruction, our American schools more clearly approximate to the conditions in German schools, and, as we have shown, the formal steps in instruction can be applied to such lessons with very little change from their German form. But the important question now is, can they be applied equally successfully to text-book lessons in our American schools?

We may as well admit frankly at the outset that in the hands of untrained teachers with meagre scholarship and with no conception of the pupil's mental processes in the act of learning, the formal steps will never be a success. Such teachers are too dependent on text-books, have too little skill in questioning and in the use of teaching devices, and are too prone to measure results by pages and examinations to use any rational method successfully. But for the teacher with a good knowledge of subject-matter who realizes the great value of carefully assigned lessons, who knows how to help pupils to study their lessons, and who is not satisfied to feed pupils the mere husks of knowledge, very much can be gained by adapting the five steps in

instruction to text-book lessons as used in our American schools. The main features of such an adaptation have been pointed out in the preceding chapters and need be only briefly summarized here.

(1) *The Proper Assignment of the Lesson is Step One, or Preparation.*—In our American schools above the primary grades, text-book lessons are the rule. Such lessons are assigned to pupils to be prepared by independent effort at their seats during the study periods. Now, in the proper assignment of such lessons the teacher should review the old lessons, leading up to the new topic, and aid pupils to call up their old related ideas which are necessary in mastering the new ideas of the lesson, state the aim of the advance lesson, and remove the difficulties that would block the pupil's efforts in independent study at his seat or at home. In other words, this careful, intelligent assignment of the lesson, this pre-view of a certain definite portion of the text-book with a view to its mastery, is step one, or preparation.

(2) *The Pupil's Study of the Lesson at His Seat Constitutes Step Two, or Presentation.*—When the lesson has been assigned, the pupils use the text-book in its preparation. The new ideas are presented to the pupil through symbols that appeal to the eye instead of to the ear as in oral teaching. That is, the study of the text-book, written by some teacher who is absent, is merely getting through the eye what the same teacher would tell the pupil by word of mouth more in detail if he were actually present. The great danger of waste in text-book study arises from the fact that the text-book, as its name implies, is only the barest epitome of the subject, a condensed statement, a mere summary, is, in fact, only a book of *answers*. Unless the pupil has been safeguarded by a careful assignment of the lesson, he reads

the answers to problems in history, geography, grammar, and other studies without so much as even thinking the *problems*—a rather stupid performance. But with a definite aim before him the pupil's preparation of his lesson from his text-book constitutes step two, or presentation. It is true that steps three and four are also involved to some extent in such text-book study, but these steps are, at best, only imperfectly mastered by the pupil in his study of the book, and it is here that the teacher's help is most needed. Such help may be given according to the Batavia plan, modified to meet the special conditions of the school, or during the recitation period.

(3) *The Chief Work of the Recitation Lesson is a More Complete Mastery of Comparison, Generalization, and Application.*—From what has been said it is clear that the time of the recitation ought not to be taken up solely or chiefly in parrot-like repetition by the pupils of what they have learned from the text-book. That is, the words of the text-book are not to be recited verbatim, nor are teachers to insist too much on the "substance" of the text-book. The time of the recitation lesson should be devoted to supplying important details that the text-book has omitted, conversation, discussions, comparison, the formulation of definitions, rules, and principles, their illustration and application to new cases, the solution of problems, the analysis of sentences, constructive work, drill, and a pre-view of the next lesson.

Such an application of the formal steps in instruction as is here outlined is the surest way of connecting the study lesson with the recitation lesson, preventing the immense waste of time and energy in so-called "study," and vitalizing the entire work of the school. Such an application of the formal steps in instruction to text-book

lessons will go far to insure a proper balance in the teacher's use of induction and deduction, and since these laws are the fundamental laws of human thinking, no method that ignores them can be a rational method. To be successful the teacher must base his method of teaching upon the pupil's method of learning. Without this the teacher and pupil do not really work together; they work at cross-purposes and only confuse and irritate each other. As Raymont says: "That the acquisition of knowledge or of skill is a process of assimilation of new to old, that the relevant parts of a pupil's previously acquired stock of ideas should therefore be recalled, that there should be a progress from the concrete and particular to the abstract and general, that ideas must be possessed before they can be applied, and that application in its turn makes for effective and permanent possession; these are truths as sure as the law of gravitation, because they embody the plain facts of the working of a child's mind." These facts are the basis of method in teaching. Any form of procedure that runs counter to these facts is no method.

Aids to Method, or Teaching Devices.—Throughout this discussion of method in teaching it has been assumed that to be effective method must be adapted to the age and advancement of the pupils, the subject-matter, and the environment of the school. Such adaptation implies the use of teaching devices and expedients. Chief among such aids to method are: (1) The text-books; (2) questioning, both testing and developing questions; (3) illustrations, including those that appeal to the ear, the eye, and the hand; (4) explanations; (5) drills. By the judicious use of these devices the teacher can introduce endless variety into the recitation. Thus, although the aim and method

of the recitation remain the same from beginning to end, its form is varying constantly. Here the teacher's individuality, skill, scholarship, and power of invention have full play. Finally, no teacher can afford to deceive himself as to the real relation between method and personality, as Rein says: "No natural educator is so gifted through divine favor from the beginning, as to be able to reach the highest results entirely without the aid of all methodical schooling, and there will never be a method so wonderful as to be able to supplant the power of strong personality. Therefore, the educator who undertakes his office in earnest will constantly direct his attention to the perfection of *method* of instruction, and at the same time labor to develop and perfect his own personality, because so many factors that are important for the success of direct instruction, depend upon his conduct, his example, and his appearance."

The Stream of Thought in the Recitation.—There is a remarkable chapter in James's "Psychology," entitled "The Stream of Consciousness," in which he says: "Consciousness, then, does not appear to itself chopped up in bits. Such words as chain or train do not describe it fitly as it presents itself in the first instance. It is nothing jointed; it flows. A river or a stream are the metaphors by which it is most naturally described. In talking of it hereafter, let us call it the stream of thought, of consciousness, or of subjective life." Now the recitation is merely a portion of this ever-flowing stream. But to be a stream at all it must have direction and current and be confined in certain definite limits by banks. Teachers and pupils must think together toward the same aim; and the teacher must not attempt to do for the pupils what they should do for themselves—perceive, compare, abstract, select, asso-

ciate, reflect, verify, apply. So shall the stream of each pupil's consciousness increase in depth, clearness, power, and sweetness.

SUGGESTED READINGS

Rein, "Outline of Pedagogics," pp. 135–157; Herbart (Felkin's translation), "Science of Education," book II, chap. I; Ufer, "Pedagogy of Herbart" (English translation), pp. 81–92; Roark, "Method in Education," chaps. III, V; McMurry, "The Method of the Recitation"; Dutton, "School Management," chap. XII; White, "The Art of Teaching," chaps. V, IX, X, XII; Baldwin, "School Management," chap. XVI; Sabin, "Common Sense Didactics," chaps. XII, XIII; Bagley, "The Educative Process," chaps. XVIII to XXI, inclusive; Hamilton, "The Recitation," parts II, III; Seeley, "The Foundation of Education," chaps. XVI, XVII, and "Elementary Pedagogy," chaps. VI, VII, VIII; Barnett, "Common Sense in Education and Teaching," chap. I; De Garmo, "Essentials of Method"; Findlay, "Principles of Class Teaching," chaps. XII to XVI, inclusive; Landon, "The Art of Questioning"; Keith, "Elementary Education," chaps. VIII, IX; Bender, "The Teacher at Work," pp. 67–112.

PART IV

THE TEACHER AS TRAINER

CHAPTER XXII

THE NATURE AND IMPORTANCE OF TRAINING

Habits are Formed Through Training.—"Train up a child in the way he should go; and when he is old, he will not depart from it," was a proverb in the days of Solomon. "Habit is a second nature," it is said; but the Duke of Wellington declared that "Habit is ten times nature."

Habits are formed by practice. Right habits are formed by right practice; therefore, in the education of children practice must be guided by instruction, must be planned and directed by those wiser and more experienced than themselves. Teaching alone is powerless to form habits. Teaching must be supplemented at every step by practice. The teacher must be a trainer.

Neglect of Training in Modern Schools.—To train is to form by instruction and practice. A trainer is one who by means of a systematic course of instruction and practice forms or modifies a living organism according to a definite plan. In Mulcaster's time it was good English to speak of the education of the children as the "train" and the teacher as the "trainer." And it is a painful proof of the verbal formalism and memory-cramming of our school instruction that the word "teacher" has come to be used

to designate the instructor of children only, while the word "trainer" is applied to one who instructs animals. The marvellous results of such intelligent training of animals may be seen in any travelling circus.

There are hopeful signs that the old meaning is to be restored to the words "train" and "trainer," for we are beginning to hear much about sense training, physical training, manual training, and will-training in our schools. The use of these terms is, at least, a recognition of the great truths that use, or functioning, determines organ, that knowing is not doing, that habits and character are not formed by precepts and book lessons alone—in other words, that the teacher must be a trainer. Indeed all great educational reformers have emphasized this very truth. The course of study proposed by Comenius included sense training, weighing, singing, drawing, physical training, and handicrafts. Rousseau declared that a child's first teachers are his feet, hands, and eyes. Pestalozzi taught that knowledge is of no value unless it has a basis of action, and that while it is well for a child to learn something, the really important thing for him is to *be* something. Froebel also based his whole system of primary education upon the pupil's self-activity under proper instruction and guidance. And Horace Mann said: "Unfortunately, education amongst us at present consists too much in telling, not in training."

Nature of Training.—Training is causing to act efficiently; it involves doing, drill, practice. The purpose of training is the unfolding of power and the acquisition of skill. Training must begin with the body, the senses, the hand. The mind acquires skill only through the mastery of the body. The pupil must learn to control his muscles before he can acquire control of his ideas. Exer-

cise is the great law that underlies and conditions all training. The work of the trainer is not so much the giving of information as calling into vigorous use the powers of the pupil. "Giving object-lessons" is a misnomer, for the true purpose of all such lessons is to make the pupils skilful in studying objects.

There is no effective teaching where instruction is not accompanied or preceded by training. It is altogether too common a practice in our schools to teach geography from maps and books alone, with no reference to real rivers, hills, cities, and people, arithmetic as a system of rules, grammar as a mass of abstract definitions, geometry as a series of demonstrations to be memorized, and Latin classics as mere parsing exercises. Recitations are too often weak attempts to reproduce the words of the text-book and examinations a test of how much a pupil has remembered. Standings are determined by marks and students are ranked by percentages. But the tests of knowledge that the world applies to the student are these: What can he do? Has he good judgment and common-sense? Has he good habits? Is he energetic, persevering, self-reliant, honest? Has he learned how to care for his health? Can he work without constant oversight and without shirking and bear hardship without whining? Does he do what he is told to do or simply make excuses for not doing it?

Training enables the learner to make a ready and sure application of his knowledge to the needs of daily life, transforms information into mastery, science into skill, theory into practice. A student who cannot both speak and write well has not been trained in language no matter how much of grammar, composition, rhetoric, or Latin he may have studied.

When the teacher's work shall be viewed in the light of his function as a trainer, one whose duty it is to form as well as to inform, to call into healthy activity all the powers of the child, quicken his senses, develop his logical memory, enrich his imagination, sharpen his intellect, strengthen his will, ennoble his emotions, form his habits, and shape his character, it will not be necessary or possible for the National Educational Association to repeat such sweeping resolutions as it passed in 1905 at Ocean Grove. In these resolutions the school-children of the United States were charged with: (1) Disregard for authority; (2) a lack of respect for age and experience; (3) a disposition to follow interest and pleasure rather than obligation and right; (4) a weak sense of duty and responsibility.

Proper Development Implies Training.—A brief summary of the theory of development which underlies all education will show that training must constitute a very important element in such development. (1) Development includes (*a*) increase in bulk, (*b*) increase in complexity, or perfection of organization, and corresponding efficiency; (2) development is produced in one way and in one way only—by exercise of function; (3) the continual neglect or disuse of any organ weakens the organ, decreases its power to function, and may result in its atrophy or disappearance; (4) the amount of development possible in any individual child depends upon (*a*) heredity, or original outfit, (*b*) opportunities for exercise, (*c*) the use made of such opportunities; (5) the kind of exercise required to develop the child must be in harmony with his nature and in proportion to his strength—all other exercise is harmful; (6) harmonious development can be secured only by the training of the whole child by means of specific exercises for the body, the senses, the intellect, the emotions, the will, the moral

nature; (7) the starting-point of all development is instinct, action, self-expression, rendering the inner outer through self-activity.

The mere statement of this theory of development makes clear the great importance of the teacher's function as trainer.

The Fallacy of the Old View of Formal Discipline.—Wise training always implies gradual change and improvement in some specific capacity or power of the pupil accompanied by greater skill and efficiency in action in some particular line. That training one mental power will improve all the other mental powers is true only in the degree in which such training includes common elements. The same muscles are used in rowing a boat as in sawing wood, but sawing wood does not develop skill in rowing a boat. The training of the eye does not greatly improve the hearing. The immense gulf that often exists between knowing and doing measures the difference between teaching and training. It is easier to "tell twenty what 'twere good to do than to be one of the twenty" to put the teaching into practice. Children in Sunday-school may learn the Ten Commandments, but if their conduct in the church has been marked by disorder, levity, irreverence, and disrespect for teachers, they have, in reality, taken a lesson in immorality. Boys may learn from books and teachers the harmful effects of tobacco and actually light their cigarettes on the school-house steps. That is a startling definition of sin which the apostle James gives in the words: "Therefore to him that knoweth to do good and doeth it not to him it is sin."

Forming Habits Must Accompany Instruction.—Character, then, is not formed by teaching alone; action, practice, persistent training in the formation of specific habits•

are essential. And these habits must be formed early in life; for "as the twig is bent the tree is inclined."

Professor James says: "The great thing, then, in all education is to fund and capitalize our acquisitions, and live at ease upon the interest of the fund. For this we must make automatic and habitual, as early as possible, as many useful actions as we can, and guard against the growing into ways likely to be disadvantageous to us as we should guard against the plague. The more of the details of our daily life we can hand over to the effortless custody of automatism the more the higher powers of mind will be set free for their own proper work."

Specific habits are formed by actions repeated until they become more or less automatic. The sum total of all these habits constitutes one's character and determines his conduct. The formation of habits changes every kind of function, performed at first slowly and awkwardly, into graceful and rapid action performed with ease and certainty. Radestock says: "Children are not to be taught by maxims that continually slip from their memory. Whatever we believe they must imperatively do we should strengthen them in doing by unwearied practice, whenever the opportunity offers, and if possible create opportunities therefor." Plato taught that the impressions that a child receives in childhood are the most important, as they are the more easily impressed and are retained best; for what is practised from youth up gradually forms part of the character. And Herbert Spencer said: "Not by precept, though it be daily heard; not by example, unless it be followed; but only through action, which is often called forth by the related feeling, can a moral habit be formed."

To say that the aim of all education is to build character sounds very fine, but it is too large a concept, too indefinite

and intangible an aim to be effective in the daily work of the school-room. Besides, such an aim seems far away, a dim and hazy future possibility to be realized in some mysterious way when pupils are grown-up folks. But there is nothing mysterious or indefinite about forming a specific habit. It can be named, set up as an immediate and definite aim, the nervous system set into action, repetition demanded, drill enforced, improvement noted till the process is complete. It is thus that the specific habits that make up character are formed through intelligent training. It is in this way and only in this way that children acquire the habits that fit them to live in a civilized community; for in this way they acquire correct habits of speech, habitual attitudes of body, tones of voice, personal cleanliness, manners, neatness, accuracy, system in work, prompt obedience, kindness, honesty, and regard for duty. Could teachers but realize that if they take care of the habits formed by the pupils the character of the pupils will take care of itself, and could they have the vision to see how inevitably children become mere bundles of walking habits, they would give greater heed to this most important work of the elementary school—the forming of right habits, training children to make their nervous system their ally instead of their enemy.

What I wish to emphasize is that teachers should view the whole of education as a process of forming habits; that children are born with a nervous system capable of acquiring good habits almost as easily as bad ones; that unless the nervous system of the child is trained to be his willing servant it will in maturity be his cruel master; that in early school life habits grow largely out of instincts and suggestions, so that during this period training to act is even more essential than teaching to know; that helping

the child to build up specific right habits and guarding him against bad ones is the only way to form character; that since the formation of right habits is so largely a matter of guidance, practice, and attention, the child, if given the proper assistance, can shape his character almost as he wills.

SUGGESTED READINGS

Morgan, "Studies in Pedagogy"; Thorndike, "Principles of Teaching," chap. XV; Roark, "Method in Education," chap. VI; Bagley, "The Educative Process," chaps. XIII, XXII; White, "The Art of Teaching," chaps. VII, VIII; Drummond, "The Greatest Thing in the World"; Raymont, "The Principles of Education," chap. XVI; Rein, "Outlines of Pedagogy" (English translation), pp. 163–178; Horne, "Psychological Principles of Education," chaps. VI, XIII, XXX.

CHAPTER XXIII

HABIT FORMING IS CHARACTER BUILDING

Advantages of Habits.—It will be very helpful to the teacher to keep in mind some of the ways in which habits, once acquired, will make the work of the pupils more efficient.

(1) *Habits Save Power and Lessen Fatigue.*—By right practice the pupil learns how to select the muscles necessary to perform an act most efficiently and to inhibit the action of all other muscles. He also learns the amount of force necessary in the performance of an act, and thus avoids the waste of energy. Thus aimless and unregulated movements are gradually trained into definite and co-ordinate ones, as in writing, drawing, reading, singing, and maintaining right attitudes of body. To learn to do one thing accurately the pupil must abstain from doing other things at the same time. The vital power uselessly employed in aimless movements, not only creates disorder in the school-room, but subtracts so much from the pupil's power to concentrate his attention upon his lesson; therefore the pupil must learn to sit still.

Habit enables the memory to retain and reproduce with ease and certainty what was at first repeated with great effort and hesitation. Through practice the imagination needs only a cue to foresee the result of a familiar process, judgment becomes quick and sure when dealing with

objects often compared, and inference almost intuition. With constant and firm guidance and control, pupils soon learn to obey without murmuring and to comply cheerfully with all the necessary requirements of the school, thus saving an immense amount of nervous energy which under an incompetent teacher is worse than wasted in irritation, fretting, fear, and chronic inward rebellion.

As actions are repeated they find the lines of least resistance, tend to become reflex, and hence are performed with increasingly greater accuracy, rapidity, facility, and pleasure. These four words spell skill. In becoming skill, an action requires less physical force, less attention, less supervision. Learning to walk, talk, swim, ride, skate, play a piano, all illustrate these facts. It is evident that the energy and power of whatever kind thus saved is set free to conquer more complex processes or to acquire new knowledge.

(2) *Habits Strengthen Power.*—Exercise is the fundamental law of growth of any kind. Every one knows that this law applies to all our physical powers; but few realize that to be strong perceivers we must perceive, to be strong in memory we must remember, to be strong in judgment we must think, and to be strong in virtue we must be trained in right-doing. The marvellous ability of the painter to distinguish colors, of musicians to distinguish sounds, of blind people to know the world through touch are the results of untiring practice—simply habit. Thus through carefully graded exercises, adapted at every stage to his increasing powers, the pupil in the school goes on from strength to strength, in language from primer to Shakespeare, in mathematics from numbers to calculus, and in geography from his school-yard to the uttermost bounds of the earth; and the last lesson is no harder for

him than the first. Thus habit widens the circle of the pupil's knowledge and increases his capacities.

(3) *Habits Conserve Knowledge.*—When we speak of "storing up knowledge," what we really mean is that certain brain cells have acquired the habit of repeating a previous action, of working to-day as they worked yesterday. Consciousness is always a personal affair. Ideas have no existence except in some conscious mind. Sensations modify brain cells, and, if often repeated, they change such cells in structure. When the objects causing the sensations are removed, the brain cells tend to act as they have acted before. The result in consciousness is not a sensation nor a percept, but a memory image that serves as a symbol for the previous experiences of sensation and perception. Thus memory is the mind working in the same way it has worked before, that is, a result of the habits acquired by brain cells. In this sense habits are sometimes defined as the "memory of the brain and spinal cord," and we gladly turn over to them all the thousand little necessary actions of our daily life, our walking, dressing, undressing, writing, spelling, selecting what we shall eat or drink, and what particular act in a series we shall perform next.

Moreover, ideas are acquired in a definite order of time and space, and such ideas tend to suggest each other because of the associated action of certain brain cells and the tendency of these brain cells to repeat their action in the original way. Thus a child's memory is at first ruled by the primary law of contiguity. As he grows older, the secondary laws of association, such as similarity, recency, interest, and voluntary attention enable him to vary the sequence of his memory images. This power of preserving and restoring past experiences at will is the great

conserver of our individual ideas and even our sense of personal identity.

The conservative power of habits in society is apparent. It keeps the student at his books, the lawyer at his desk, the farmer at his task, the workers in mine and shop and factory at their weary round of daily toil. Laws, customs, castes, institutions, religions, race distinctions are the habits of society. They are the social safeguards just as personal and professional habits are the safeguards of the individual.

Dangers of Habits.—The tendency of the nervous system to repeat actions, to form grooves in the brain, has also its dangers. These dangers are so real and so great that they justify all that has been said as to the importance of forming good habits, all the warning against evil ways that parents and teachers can impress upon the minds of the young. How difficult it is to change the habits of society the fate of prophets, martyrs, and reformers proves. Only through wars and terrible conflicts are undesirable customs and social habits changed. And this struggle has its counterpart in the life of the individual when he has admitted within the gates of his life enemies in the form of bad habits—enemies, it may be, that appeared to him at first in the guise of friends, gradually acquired the control of his will, at last revealed their true nature, and now sap his vitality, jeer at his weakness, and ever draw their coils more tightly.

(1) *Children May Acquire Bad Habits Through Ignorance.*—The child at first is a bundle of instincts and impulses. These are about as apt to lead him to do wrong actions as right ones. But his nervous system is extremely plastic and the act, if wrong, leaves as strong a tendency in the nerve cells to repeat itself as a right act would leave.

Thus, before a child can foresee the results of his actions the foundation of a bad habit may be laid; hence his imperative need of intelligent guidance by a higher authority than his own blind instincts. Parents and teachers represent this authority, and to this higher authority the child must be trained to yield ready and implicit obedience, otherwise no principle of order can be introduced into his daily acts. It is the duty of parents and teachers to encourage the beginning of good habits, to manipulate the child's environment in such a way as to make right-doing pleasant and easy, to furnish correct patterns for imitation, and to insist on a sufficient amount of practice to fix the habit.

On the other hand, it is equally the duty of those who are responsible for the child to shield his mind from vice, to keep him away from evil associations, to check the beginnings of evil, to starve out wrong tendencies, and nip in the bud every undesirable emotion. As Thorndike says: "Put together what you wish to have go together. Reward good impulses. Conversely: keep apart what you wish to have separate. Let undesirable impulses bring discomfort."

(2) *Habits Must Not Wholly Supplant Judgment.*— Habits are the conservative power in the life of the individual and of society. But progress always demands change, power of adaptation, freedom of personal choice. The effect of habit is to render the judgment automatic, to lessen the range of adaptation. It is said that to hasten the process of habit forming in children is to prevent the possibility of their future growth, curtail their power of adaptation, weaken their initiative, dull their feelings. This is to produce arrested development and make the pupil helpless in judgment and weak in will when he is

compelled to face new situations in life. This view of the dangers of extreme habituation led Rousseau to lay down the oft-quoted rule: "The only habit which a child should be allowed to form is to contract no habit whatever." But such a statement must not be taken too seriously; for it was Rousseau also who said: "Education is certainly nothing but a habit." The trouble with Rousseau and those writers who are afraid that the habits formed by the child will stand in the way of his future development and curtail his liberty is that they fail to distinguish between habits that should be fixed early and for all time and those whose purpose is only temporary. There is no danger that children will form too early or too well the habits of chastity, truthfulness, personal cleanliness, correct articulation, cheerfulness, reverence, kindness, politeness, honor. These habits are always good and only good. On the other hand, those habits, like the crying of an infant, the creeping of a little child, lining up to enter a school building, unquestioning obedience to the authority of parents and teachers, serve only a temporary purpose in the development of the child and are subject to change or elimination.

In short, some habits are formed to meet situations that are constant. These habits should become "second nature" as early as possible. Other habits are formed to meet situations that are constantly changing, and such habits always involve an element of judgment and personal choice. The teacher must take great pains to foster this freedom of choice and exercise of judgment by plays and games, by variety of exercises, by the creation of new situations, and by the largest possible freedom from restraints consistent with effective discipline. Judgment and reflection should be encouraged in every stage of the pupil's education. As he acquires greater knowledge and fore-

sight, he should be left as free as possible to determine his own conduct, to adapt his actions to the circumstances that surround him, to choose his friends, and to emancipate himself from all sense of external authority through his willing loyal obedience to the inner law of conscience and duty. The acquisition of habits must include the habit of growth, that is, the habit of readaptation to an ever-expanding environment. In a few years, at most, the boy or girl will be free from the restraints of home, free from the control of parent and teacher. He must, therefore, in the home and in the school be trained to be a self-governing being, to walk without crutches, and to follow freely the straight path. Not slavery nor lawlessness should be the outcome of training, but liberty under the law, gladly self-imposed and faithfully obeyed.

(3) *Bad Habits are Our Worst Enemies.*—Bad habits are merciless tyrants. Indolence, evil companions, sensational literature, sensual pleasures are not fictions but real dangers. They promise a good time, popularity, freedom. But for the good time they give wounds and misery. For health and strength they substitute weakness. For manly courage they give the soul of a coward. For promised liberty they give chains and slavery, and brand the face, the eyes, the brain, the soul with the badge of infamy. The libertine, the drunkard, or the opium fiend robs the state of a good citizen, robs society of a man, and robs his own children of the necessities of life, of education, and of a good name.

How Habits are Formed or Broken.—The teacher as trainer should clearly understand the chain of processes in the forming of a habit. The voluntary forming of a habit calls into play every power of the child—intellect, feeling, and will, and this fact gives force to the statement that

"Education is nothing but a habit." Let us briefly canvass the steps in the process of forming a habit.

(1) *The Starting-Point, or the Raw Materials of Habit.* —The trainer of children can make no greater mistake than to view their actions from the stand-point of grown-up people. The little child is a bundle of instincts, a mixture of good and bad tendencies. His actions are not the result of deliberation and choice, and so are neither moral nor immoral, but only non-moral. These tendencies and instincts are the raw materials out of which habits are formed. "Out of this primitive material," as Raymont says, "with its mixture of promising and unpromising elements, strangely inconsistent with one another, and variously compounded in individual children, a character of some sort will eventually be shaped; and the task of the educator is to cultivate the favorable and to check and moderate the unfavorable, so that the former will tend to become the governing principles of the child's life." Thus the starting-point of a habit is an instinct, desire, or idea. Every instinct or desire becomes an impulse to go out into action as soon as an appropriate stimulus acts upon the sensory nerves. If the resulting action is not modified in any way by deliberation or inhibition, it is a reflex, instinctive, or impulsive action and has no moral element. At first, all the actions of the child are of this nature. The purposes of such acts are (1) self-preservation; (2) to form the basis of voluntary actions and thus make habits possible. By an instinct we mean the inherited power or tendency to perform certain complex acts having a definite end without previous training and with no foresight of the end. Some of these instincts in the child are sucking, smiling, biting, clasping, crying, anger, fear, physical activity, imitation, greed, cruelty, vocalization, curiosity.

The result of reflex, instinctive, and impulsive actions, then, is to satisfy some desire or tendency. Little by little the child associates such actions with the satisfaction of the corresponding desire, and acquires the power to image the movements necessary to satisfy a desire, to reinstate these movements, and to inhibit all other movements that would interfere with them. Thus he acquires the power of deliberative or voluntary movement, and is started on the road of conscious habit forming.

(2) *How Attention Makes Motives.*—In all voluntary actions there must be a choice of alternatives. We say that this choice is a choice of motives. Psychologists used to say that motives determine the will, but it would be nearer the truth to say that the will, in the form of voluntary attention, determines motives. In fact, motives spring out of instincts and desires. A motive may be defined as a desire plus an image of the thing desired. Now every desire, instinct, impulse, or idea tends to go out into motor action. But in all voluntary action there must be at least two motives, and to choose one is to reject the other; hence we speak of opposing motives. Which particular one of these motives will triumph over the other depends upon the amount of voluntary attention each one receives; for elsewhere we have shown that the effects of fixing the attention upon an idea are: (1) The idea grows in clearness and distinctness; (2) it increases in emotional interest, either pleasurable or painful; (3) the tendency of the idea to go out into motor action grows stronger. Thus it is that voluntary attention makes motives, and that it becomes literally true that "as a man thinketh in his heart so is he." The very essence of moral training is here revealed, and the psychological soundness of Paul's famous recipe for virtue is apparent: "Whatsoever things

are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report; if there be any virtue and if there be any praise, *think* on these things." The results of such thinking are action, habit, character.

To understand the raw materials with which he has to deal, to determine what habits his pupils should form and what habits they shall not form, to suggest ideas that are true, honest, just, pure, lovely, and of good report and set pupils to thinking on these things constitute the peculiar functions of the teacher as trainer in this step of habit forming.

(3) *Weighing and Choosing.*—The process of deliberation is a process of weighing and choosing, as the very etymology of the word suggests. In a special sense deliberation represents the intellectual element in habit forming. It implies comparison, judgment, analysis, and synthesis. It involves the memory of past experiences and the power to foresee the consequence of particular acts. Moreover, deliberation suggests self-restraint, the inhibition of action until the best course to be followed has been determined. It is, in fact, the very antithesis of impulse on the one hand and habit on the other.

Thus our voluntary actions are always the result of our own thoughts. This general truth is called the law of motor suggestion. It means that every percept, every memory image, every idea, every emotion has an influence upon our conduct. They constantly suggest actions. Those thoughts that become so charged with motor suggestion as to really cause us to act are called impelling motives, and the only reason that they ever become impelling motives is because we have let them dwell in the mind long enough to grow so clear and distinct, so sugges-

tive of pleasure or pain, so full of dynamic tendency that action is the only possible result.

No mental process or action has been reduced to a habit as long as it requires deliberation. The pupil who stops to deliberate whether he will lie or tell the truth, steal or not steal, comply with the rules of the school or break them has not yet acquired the habits of truthfulness, honesty, or obedience. Here is the real battle-field between the lower self and the higher self, and a master stroke in the conflict is to centre the attention upon the ideas that lead to the higher course of action. To do so is to determine choice.

(4) *Acting and Imaging Actions.*—Choice is followed by action, immediate or remote. The muscles used in the voluntary actions of an adult are controlled by the motor areas of the cortex, but this control in the case of the child is very imperfect and uncertain; hence his first voluntary acts are awkward, hesitating, and inaccurate. This is illustrated in the pupil's first attempts to write, to draw, to sing, or to pronounce words at sight. His first efforts require a great deal of attention and nervous energy and are far from skilful. Gradually they become more accurate, require less attention, arouse less feeling, and finally lapse into a series of reflex acts. Such a series of acquired reflex actions constitutes a habit. The importance of this first voluntary action in the formation of a habit is very great. It is a new lesson for muscles and brain cells to learn. It must blaze a trail through the nervous system, for as Professor James says: "An acquired habit from the physiological point of view is nothing but a new pathway of discharge formed in the brain by which certain incoming currents tend ever after to escape." Habits are possible because the nervous system is plastic enough to receive

new impressions and stable enough to retain them. So when a new voluntary action is performed an impression passes from some sense organ into the brain. This impression produces some change in condition or structure in the brain cells. The action that produced the change started in a stimulus and ended in a movement, hence completed a circuit in the nervous system. The next time the same act is performed, the impressions, or vibrations, will travel the same route through the nervous system. It is easy to think of this course as a path. But corresponding to every voluntary action there must be in the mind an image or mental picture of the action. The outward act thus always has its inner side in a mental image, feeling, or thought. The inner thought and the outward act are, in this sense, equivalents. At first the child acquires these mental images of actions through imitation. He begins by copying the mere external side of the actions of others. Gradually he learns to image the action apart from the actor, to copy the action on its inner side, to understand its motive and purpose. In this way the action becomes his own, the expression of his own feeling and thought. He has thus grown out of imitation into originality, out of slavish dependence upon suggestions from without into freely willed actions suggested from within.

(5) *Tendency to Repetition, or the Physiological Factor in Habit.*—The course of the sensory impulse from some sense organ to the brain and its return as a motor response to the appropriate muscles has been called a path. The marking out of the path is a physiological affair. It follows as the result of action. It is as deep and definite and sure in the case of a wrong or useless act as it is in a right and useful one. The nervous system is neither moral

nor immoral. It is simply a phonograph to repeat impressions, good or bad, just as they were first made. It will record the wrong pronunciation of a word as distinctly as the right one, the frown as surely as the smile, the hateful deed as indelibly as the kindly act, the oath as certainly as the prayer. The nervous system is like clay in the hands of the potter, like plaster in the hands of the moulder; it is wax to receive impressions and marble to retain them. But more than this, the nervous system is living material and possesses one property that no clay or plaster or marble has, and that is the tendency to give out automatically the action or impression that it has once performed or received. Every repetition increases the power of this tendency. The purpose of repetition, then, in the voluntary formation of habits is to strengthen this tendency or, in other words, to deepen the original path. As the path through repetition becomes more clearly defined, deeper, smoother, the corresponding actions require less effort, become more accurate, and call for less and less conscious attention.

(6) *Repetition, or Persistent Imitation.*—In training pupils it is important to remember that repetition as used here is not a mere blind and unvarying process as it is in natural reflex actions and instinctive movements. The purpose of repetition in teaching children writing, drawing, reading, composition, and so on is not to reproduce exactly a previous action, but is an attempt to improve on the last action, to image the perfect action a little better, to approach a little nearer to the ideal set up in the child's mind, to read a little more smoothly and expressively, to draw a little better picture, to form the letter a little more accurately. This is persistent imitation. It may take a thousand such repetitions, each one requiring a strong

effort of conscious attention, accurate judgment, active imagination, memory of former efforts, fidelity to an ideal, and keen sense of duty to master the art or to form the habit. Such carefully guided, intelligent, and persistent repetition constitutes the very essence of effective practice and drill in training. In the face of these simple facts the teacher can well afford to ignore the alarming statements of those theorists who decry the forming of habits on the ground of arresting the child's development, weakening his judgment, and curtailing his freedom of personal choice.

Habits as Related to Character.—Thus through specific instruction and training in the home and the school definite habits are formed, and all these habits together constitute character. If the child's instruction and training have been wise and consistent his life trend is upward. Little by little he has gained the mastery of his lower nature or, more correctly, has transformed his primitive instincts into useful habits. Thus every instinct, through training, may be made to serve some beneficent purpose in the formation of the child's character. None of his capital is useless, none of it should be lost. The degrading instinct of fear in the child becomes through proper training the habits of caution and prudence in the man. The hateful outbursts of anger and rage in the child are fashioned by the magic wand of training into the noble virtues of justice, patriotism, and hatred of wrong. The exasperating inquisitiveness and curiosity of the child are changed into the unselfish love of knowledge. Soon the life is fortified at every point with right habits, and the individual becomes so fixed in principle, so stable in action, so sure in judgment that people trust him, believe in him, and gladly follow where he leads. But if through

the lack of proper instruction and training the habit of choosing the easy way, the lower course of action, the selfish gratification once grips the inner life, the whole trend of character is downward, and soon a thousand bad habits enslave the will, the moral nature is perverted, and reform becomes almost as impossible as it is for the leopard to change his spots or the Ethiopian his skin.

Here, too, it should be noted that there is a very natural explanation for the discouraging fact that children fall so naturally and easily into bad habits, while it requires such infinite pains to have them acquire good ones. By bad habits we mean such as are not suited to the highest ideals of our present morality and civilization. Rage, cruelty, revenge, greediness, deceit, hatred are all strongly characteristic of primitive men and savage races. They are simply instincts, or inherited habits, and do not have to be acquired through education. These instincts are not to be neglected or suppressed, but guided and trained. To permit children to give way to their instincts and make no effort to master them is to permit them to grow up criminals, degenerates, or mere savages unfit to live in a civilized community. To free the child from slavery, to fashion these instincts through right training into habits of self-control, self-denial, patience, courage, chastity, temperance, justice, sympathy, and courtesy is the great purpose of moral education.

There is another consideration of great importance to the teacher as trainer. The instincts and tendencies of children, both good and bad, do not manifest themselves simultaneously, but crop out in succession in the course of the child's development. If such an out-cropping instinct is not met with means for development into a habit it soon dies out, and if the means are present but the child is left

without instruction and training the instinct will easily become a bad habit. Unless a boy learns to love games and sports he will find no joy in such things as a man. In his chapter on "Instinct," Dr. James says: "There is a happy moment for fixing skill in drawing, for making boys collectors in natural history, and presently dissectors and botanists; then for initiating them into the harmonies of mechanics and the wonders of physical and chemical law"; and he adds, "To detect the moment of distinctive readiness for the subject is, then, the first duty of every educator."

Rules for Forming and Breaking Habits.—The last word on training is this: habits may be controlled and, in early life, easily controlled. They may be acquired, abolished, modified through training. To form or abolish a habit as long as the nervous system remains plastic is simply a matter of common-sense, clear ideas, strength of purpose, and continuity of effort. There are a few rules for forming and breaking habits that have become classic.

(1) *Make a Vigorous Start.*—Summon to the mind every reason for changing your life; picture the advantages; put yourself in the way of those who possess the habit you desire to form; avoid those with the evil habit you wish to overcome. You must go into the struggle with no coward's heart, expecting defeat, framing excuses for shirking the battle. You must believe in yourself, in your honesty of purpose, and your ultimate victory. Herbart says: "Dejection which becomes habitual is consumption of the character." Commit yourself wholly, unreservedly, publicly to the new course you have marked out.

(2) *Permit No Exception.*—Success at first is indispensable. Failure here dampens the courage, undermines confidence, chills enthusiasm, paralyzes effort, and helps to

form the most pitiable habit of all—the habit of expecting defeat. The evil that we very greatly fear is very likely to come to pass in our lives. Continuity in practice is the one sure means of making the nervous system our constant ally. To "taper off" in breaking a bad habit is to invite defeat and prove one's self a fool as well as a coward.

(3) *Act on Every Opportunity Until the Habit is Formed.*—Precept and example are good, resolves are better, but action and practice are best, for they are absolutely necessary to convert precepts and resolutions into habit. In forming or breaking habits one act is worth a hundred resolutions, wishes, or intentions. As one writer says: "There is no more contemptible type of human character than that of the nerveless sentimentalist and dreamer who spends his life in a weltering sea of sensibility and emotion but who never does a manly concrete act." Do not lose time in dreading a disagreeable task. Temper the will by doing hard things.

(4) *Grow a Good Habit in the Place of a Bad One.*—Action is positive; to simply refrain from action is not enough. To conquer the habit of lying one must not refrain from talking, but must be scrupulously exact in what he says. A bad temper is not overcome by refusing to frown, but by smiling and passing the genial word; and selfishness is not conquered by becoming a hermit, but by playing the good Samaritan to those who are in need. Thorndike says: "Intellect and character are strengthened, not by any subtle and easy metamorphosis, but by the establishment of particular ideas and acts under the law of habit. There is no way of becoming self-controlled except by to-day, to-morrow, and all the days in each little conflict controlling one's self. There is no possibility of gaining general accuracy and thoroughness except by

seeking accuracy in every situation, by trying to be thorough in every task, by being accurate and thorough rather than slipshod and mediocre whenever the choice is offered. No one becomes honest save by telling the truth or trustworthy save by fulfilling each obligation he accepts. No one may win the spirit of love and service who does not day by day and hour by hour do each act of kindness and help which chance puts in his way or his own thoughtfulness can discover. The mind does not give something for nothing. The price of a disciplined intellect and will is eternal vigilance in the formation of habits. Moreover, if special training does not give large dividends they are safe ones; if it drives a hard bargain it at least redeems every promise. No right thought or act is ever without its reward; each present response is a permanent investment for the future; the little things prepare for the great; the gain achieved by a teacher's efforts is never wasted. The only way to become an efficient thinker and a true man is to constantly think efficiently and act manfully, but that way is sure. Habit rules us but it also never fails us."

The Spirit and Motives of the Trainer.—Thus the teacher's work as trainer permeates the entire work of the school. There is a certain time for study, another time for recitation, another time for play, but the time for training is all the time. It is the one continuous function of the school. To quote from the rules of the School Board of Cleveland: "It shall be a duty of the first importance on the part of the teachers to be models in personal appearance and conduct for the pupils under their care. They are especially enjoined to avail themselves of every opportunity to inculcate neatness, promptness, politeness, cheerfulness, truthfulness, patriotism, and all the virtues which contribute

to the effectiveness of the schools, the good order of society, and the safety of our American citizenship."

The forms of training are many. Some school exercises are named physical culture, others are called recitations, drills, study lessons; still others are known as object-lessons, manual training, opening exercises; but the purpose of all of them is habit forming, training for health, for earning a living, for citizenship, for character—in a word, for complete living. Not all this training can be reduced to set exercises and drills. The finer and better part of it all may be in the spirit and motives of the teacher. The unconscious tuition of the teacher is one of the most important factors in school training. It is the alchemy of the teacher's influence that counts for most in giving pupils the desire to do better and to be better. It creates the atmosphere of the school. On the wall of a Swiss school-house are these words in memory of a man who transformed the schools of a nation by his spirit and motives: "*Henry Pestalozzi*, savior of the poor at Neuhof, at Stanz the father of the orphans, at Burgdorf founder of the common school, at Yverdun the educator of humanity; man, Christian, citizen. All for others, nothing for himself."

SUGGESTED READINGS

James, "Psychology," vol. I, chap. IV; Angell, "Psychology," chap. XXII; Salisbury, "Theory of Teaching," pp. 192–199; Sabin, "Common Sense Didactics," chaps. VII, VIII; Tompkins, "School Management," pp. 41–48 and 183–196; Barnett, "Common Sense in Education and Teaching," chap. II; Oppenheim, "Mental Growth and Control," chaps. I, VII; Baldwin, "School Management," pp. 49–53; Horne, "Psychological Principles of Education," chaps. XXVI, XXVII.

PART V

THE TEACHER AS RULER AND MANAGER

CHAPTER XXIV

SCHOOL GOVERNMENT

The Old View of School Discipline.—Nowhere else is the difference between the old school and the new more apparent than in the treatment of the subject of discipline by writers on school management. The old books on teaching are largely given over to extended discussions of school government in all its phases of authority, rules, regulations, prizes, and punishments. Minute directions are given as to how and when pupils are to be reproved, reprimanded, deprived of privileges, suspended, expelled. There are long and learned discussions of corporal punishment, its dangers, its merits, the instrument to be used, the number of blows to be given, the particular portion of the anatomy to suffer. All this is a strong reminder of the fact that when the school course was entirely devoid of interest, teachers untrained in method and utterly ignorant of the laws of human development, the rod was the necessary emblem of the teacher's vocation.

Henry Barnard cites the case of a German school-master who kept a record of the punishments he had inflicted

during his career as a teacher. Among the usual punishments were 911,527 blows with a cane, 20,989 with a ruler, 136,715 with the hand, 10,205 over the mouth, 7,905 boxes on the ears, 1,115,800 snaps on the head.

Why School Government Has Become More Humane.—(1) School government reflects the greater humanity of modern civil codes.

In 1800 the criminal code of England recognized two hundred and twenty-three offences punishable with death. If a man shot at rabbits or cut down young trees or injured Westminster Bridge or stole property valued at five shillings or stole a piece of cloth from a bleach-field he was hanged. In 1816 sentence of death was passed upon a child only ten years old. In 1846 an English soldier was flogged to death, and wherever slavery existed punishments were frequent and brutal.

As slavery gradually disappeared and civil codes became more enlightened, school government reflected the change in public sentiment. In most communities now the teacher will find the question of corporal punishment a matter of regulation by the school authorities.

(2) The work of the school has been made more interesting.

As long as the work of the school consisted largely of memorizing Latin grammar and of absurd parsing exercises, it possessed little interest for the average boy. Through an enriched course of study, providing for variety, well graded as to difficulties, and affording outlets for the pupil's instinctive love of physical activity, there is less need of compulsion and punishment. And as teachers have mastered the art of method, learned to understand the instincts of children, to discover their lovable traits, and to believe in their possibilities, instruction and training have

more and more superseded government and punishment in our schools.

(3) The whole spirit of the school has been transformed through the influence of educational reformers.

Through the sacrificing labors of Pestalozzi, Froebel, Horace Mann, Elizabeth Peabody, Francis Parker, and hundreds of other noble men and women, the calling of the teacher has been uplifted and dignified, the laws of human development have been unfolded, and the attention of teachers has been turned more and more to the inner forces at work in the school-room and to the process of mental and spiritual growth in the child. Little by little teachers are discovering that school discipline cannot be separated from the other work of the school and pursued as an end in itself; that it is a matter of spirit rather than of mere external acts and forms; that training is better than punishing; that sympathy and love are stronger agents of reform than pain and hate; that the real source of discipline is the teacher's personality and influence rather than his authority and rules.

School Government as Related to Discipline.—This changed view of the nature of the teacher's work makes it necessary to distinguish between school government and school discipline. Of course government and discipline are inseparable in practice but they differ as to aim and method. The immediate purpose of school government is good order; that of discipline is good habits and character. Government aims to secure prompt obedience to commands and cheerful compliance with necessary rules and regulations; discipline seeks to render commands and rules unnecessary. Government implies restraints; discipline implies growth into liberty. Good order is the result of just government and wise management; discipline is the

result of instruction and training. The purpose of school government is to prevent everything that tends to disturb instruction and training. All tendencies to disorder, unnecessary noise, incivilities, useless expenditure of energy, restlessness, waste of time, incipient rebellion should be removed, should, in fact, be nipped in the bud; otherwise the work of instruction and training is hindered or entirely prevented. From these considerations it is clear that to secure good order is not only the imperative duty of the teacher but his *first* duty. Disorderly pupils cannot learn, and they prevent others from learning, thus the very purposes for which the school exists are defeated. Not only so, but in a disorderly school pupils are not simply *prevented* from receiving proper instruction and training; they are actually being instructed in all meanness and mischief and trained in habits of lawlessness, waste of time, disregard for all authority, impudence, coarseness, neglect of duty, and are missing their opportunity for becoming intelligent and decent citizens. The attentive reader need not be told that the larger problems of school discipline have been fully treated already in the chapters on the teacher as instructor and trainer. A short discussion of school government as a means of securing and maintaining good order is all that is required here.

Good Order Must Precede Effective Discipline.—In this narrow sense good order must precede effective discipline. We have said that discipline implies growth into freedom. But freedom is never attained through anarchy and license. True liberty is perfect loyalty to an ideal, cheerful submission to an inner law which the mind recognizes as just and necessary. A good man does right not because he is commanded to, but because it *is* right. He would act just the same if every law were repealed, for he does

not think of the law at all, but only of his ideal of what is right. Now no one acquires this insight, this inner freedom, except through obedience to some outer authority, some training in self-restraint and self-control. To little children right is what is commanded; wrong is what is forbidden. Children acquire concepts and principles of morality, just as they must acquire all other concepts, *i. e.*, through concrete experiences. No system of moral training is possible without rewards and punishments. It is neither possible nor just to treat every pupil exactly like every other pupil, to make no distinction between the lazy and the industrious, the careful and the careless, the faithful and the faithless, the obedient and the rebellious. It is not possible that a school should be composed of pupils so perfect that rewards and punishments are never necessary. But we have seen that while the first aim of school government is order, the final aim is freedom. Compayré says: "The day will come when they (the pupils) will no longer be subject to the rules of the school. And this makes still more apparent the necessity of a discipline, at once mild and strong, affectionate and severe, of a liberal discipline which, while governing the child, refrains from humiliating and enslaving him, from destroying his natural inclinations, but which prepares him for becoming a man, that is, for remaining free while obedient to law." So far as the school is concerned, no order is good and no government is effective which does not in some measure contribute to the attainment of this final aim. Pupils are governed in school (1) to make instruction and training possible; (2) to learn self-government.

School Government a Relative Term.—School government has to do with the law of the school and its administration. School government includes the system of

measures employed by the teacher and the school board to create and preserve order. These measures are effective only as they are adapted to a particular school and to individual pupils in the school and are enforced with good sense, moderation, and absolute justice. We have shown that growth into self-government, or discipline, is a development, hence requires time. It is also a continuous process; yet its first aim is order and its final aim is freedom. It has to do with the child in the primary grade as well as the high-school student. But the government of little children is quite a different thing from that of high-school pupils and requires very different means. Indeed this difference is so great that a teacher may succeed admirably in the government of a primary room and fail miserably to govern older boys and girls. The means used, then, by the teacher to secure good order must conform to the stage of the pupil's development. In other words, school government is a relative term. As W. T. Harris says: "From simply commanding the teacher should proceed to explain the reasons of his commands; from these again to the expression of desires and the manifestation of a generous confidence; and from these to the frequent option and discretion of the child, preparatory to the moment of giving him entirely into his own hands."

The First Source of Good Order.—The first source of good order is thus seen to be the authority of the teacher.

Of course some ultra theorists will balk at this word authority. They have imbibed the sickly sentimentalism of Rousseau, or they are disciples of those who preach the doctrines of natural punishments, or they make "soft government" an excuse for their own weakness of character. There are, however, good reasons for asserting that

the first source of good order in the school-room is the authority of the teacher.

(1) The very nature of children makes authority necessary.

The greater number of cases of disorder in the school, at least in the lower grades, are the result of the ignorance, the carelessness, and the lack of training of pupils. Children are naturally noisy, emotional, and impulsive. They are instinctively playful, active, imitative. Some of them are sly, deceitful, cowardly. But it is for these very reasons that they need instruction and training and government. If children did not possess these characteristics, teachers would be out of a job. But it is evident that there can be no effective instruction, no possible training unless pupils are orderly, systematic, quiet, and obedient.

(2) Home training is sometimes notoriously defective.

Where children have been neglected at home, and have come into the school with bad manners and bad morals pretty well developed, it is not common-sense to expect that the teacher and the school can atone for all the sins of the parents and the home. Until the child from such a home can be trained to subject his will to the general will of the school and conform his manners and conduct to the necessary customs and requirements of the school willingly he must be *made* to do so, otherwise the whole school would be disorganized. When children have not learned to respect authority at home, it must be expected that there will be a conflict before they learn to respect the authority of the school. To permit children to grow up without respect for some authority is a crime. Hence the law gives school boards and teachers the requisite authority to enforce obedience in the school, and no teacher has the moral right to hide behind the sins of the parent and to

make the lax discipline of the home an excuse for tolerating lawlessness and rebellion at school. There must be no hesitation in using authority, no weakness, no compromise with anarchy, no fear of unpopularity, no shirking of duty. Good order must be maintained at any cost, for without it the legitimate work of the school is impossible and a disorderly school is a seed bed of vice.

The Second Source of Good Order.—The second source of good order is the character and influence of the teacher.

The teacher sets the standard of order for the school. Pupils will not have a higher standard than that of the teacher. They will seldom act any better than they are expected to act. The qualifications of the teacher necessary to secure and maintain good order are enumerated by most writers on school management. Those given by Baldwin are as follows:

1. Bearing, the inspiring factor.
2. Tact, the managing factor.
3. System, the organizing factor.
4. Will power, the controlling factor.
5. Heart power, the winning factor.
6. Teaching power, the vital factor.
7. Pupil insight, the guiding factor.
8. Culture, the commanding factor.
9. Character, the uplifting factor.

With a teacher possessing these qualities it will hardly be possible to have a disorderly school, and unless the teacher has them in some degree there will be disorder in any school.

The Third Source of Good Order.—The third source of good order is the interest of the pupils in the school and in their daily work.

The thoughtful teacher will understand that if pupils as

a class, or as individuals, are not interested in their school work, there is some adequate cause for it. Such a teacher will not resort to scolding, nagging, and punishing, but will seek to ascertain the cause of the pupil's lack of interest. He will find that the cause is in one or more of these directions.

(1) In the pupils. Some pupils are naturally slow to learn. Other pupils have more or less serious defects of the senses. Many have never been taught how to get a lesson from a book. Some have stronger outside interests, and not a few smoke cigarettes, or have other bad habits, or are improperly fed. Still others have, like Topsy, just "grow'd."

(2) In the studies. It may be that the course of study is at fault. It makes no provision for motor activities. The text-book is a poor one. The pupil may have got a bad start under a former teacher, or may be improperly classified, or may have skipped some necessary lessons, or may have never guessed that what he studies in the book has any application to real life.

(3) In the surroundings. The air may be foul, the temperature too hot or too cold, the seats uncomfortable, the class uncongenial or too small for stimulating competition.

(4) In the teacher. Lastly, the teacher will do well to look for the real cause of the pupil's lack of interest in himself. Is the school properly organized? Is the management weak and shiftless? Are the lessons well assigned? Does the teacher know the subject, and can he teach the lesson without the book? Is there interest, enthusiasm, earnestness in the teacher? Are the fundamental laws of teaching understood and applied? Is there sympathy for pupils? Does the teacher waste his energy in dissipa-

tion and foolish conduct outside of school? Some writers insist strongly that in nearly all cases the cause of a disorderly school is a disorderly teacher. According to Inspector Hughes of Toronto, disorder in school is created by all those teachers whose standard of order is low, who think it "easiest to keep poor order," who allow pupils to think that submission is a compliment to the teacher, who think children like disorder, who know the value of good order but make no conscious effort to increase their power of control or to improve their methods of discipline, who justify their lack of effort by saying that "power to discipline is a natural gift," who try to stop disorder by ringing a bell, striking the desk, stamping the floor, who are themselves noisy and demonstrative, who speak in a high key, who roll their eyes but do not see, who hurry, whose standard of order varies, who do not see any use in being so particular about trifles, who have order only while they are in the room, who believe in lecturing the class, who have no clearly defined motives to communicate to the class, who have not sufficiently developed character to inspire their pupils with their own motives, who have not sufficient will power to insist on obedience, who always teach "where children are bad," who get angry in executing the law, scold, threaten, are impatient, are harsh.

What Mr. Hughes means by this formidable list is that most pupils who are disorderly catch the disease from the teacher.

The Fourth Source of Good Order. — The fourth source of good order is the ideals and standards of the community.

All the social factors of the community should contribute something to the efficiency of the school as a means of preparation for citizenship and social life. The church,

the home life, the public library, the museum, the newspaper, the industrial life may each add its quota.

Means of Securing Good Order.—The means of securing order are of two kinds: (1) Indirect means; (2) direct means. The indirect means are preventive, and therefore of the greatest importance. This is in the real sense school government as discipline. The direct means are: (*a*) Positive incentives or rewards; (*b*) negative incentives or punishments.

(1) *Indirect Means of Securing Order.*—These are the qualifications, personality, ideals, and spirit of the teacher, as already indicated. They include the teacher's scholarship, teaching power, skill as organizer, power and foresight in management, tact, interest, sympathy, and love. The most potent force in securing good order is what Bishop Huntington has called the teacher's unconscious tuition. Teachers are coming to understand that these indirect factors are the really important ones in school government, because their purpose is to prevent disorder rather than to cure it. From this point of view, good order is work systematized; it is cheerful law-abiding. Good order has been defined as the "conscious working out of the aims of the school in productive activity," or the "condition resulting from the exact performance of duty at the right time and in the right way." It does not mean stagnation. It does not restrict pupils in their rights. It extends to the pupil's conduct in the halls, on the playground, on the street, in public places. In the best schools of to-day teachers aim to secure good order by absorbing the entire time and energy of the pupils in systematic work. They endeavor to capture the pupil's interest through richness in subject-matter, variety in method, pleasant and cheerful surroundings. They make ample

provision for the pupil's motor activity through games and athletics, through singing, drawing, and all kinds of hand-work. They plan his seat work carefully and supervise it systematically. Good order is best secured by reducing the necessary routine of the school to a habit, by making it automatic, by looking carefully after the "little things," such as the distribution and use of materials, sharpening pencils, care of desk, helping individual pupils, requests to leave the room, to whisper, or to get a drink, passing through the halls. In short, good order is secured through managing rather than governing. Regular employment of activity, systematized and constant occupation, and the influence of the teacher are the real secrets of success in the government of the school. Good order in elementary schools is largely a matter of imitation and suggestion. Children are extremely suggestible. They are unconsciously influenced by the voice, the looks, the manners of the teacher. They imitate the teacher's tones, attitudes, mannerisms, and reflect his spirit, his motives, and ideals. Spencer says: "Do but gain a boy's trust; convince him by your behavior that you have his happiness at heart; let him discover that you are the wiser of the two; let him experience the benefits of following your advice and the evils that result from disregarding it, and fear not you will readily enough guide him." So it is literally true that the school is best governed that is least governed, or rather, that is governed indirectly, through the regular work of the school, wise and skilful management, and with very little show of authority.

(2) *Direct Means of Securing Order.*—(*a*) Positive incentives. An incentive is a stimulus to effort. The word is sometimes used to name the desire for a given object, and again it is used to signify the object desired. As a

matter of fact, it includes both, for without the object, or its image, desire would be blind, and without desire the object would not influence effort. Positive school incentives are called rewards. These rewards may be material objects, as prizes, or they may consist of some mark of honor or distinction, some privilege or immunity, or the satisfaction of some specific desire, motive, or ideal. Positive incentives are legion in number, for any desire, instinct, motive, or ideal of the pupil may form the basis of an incentive. Many of the strongest positive incentives are based upon the child's natural instincts of activity, play, curiosity, imitation, emulation, and sympathy. The teacher may make use of all these positive incentives. He may bring into play the pupil's social instincts, his collecting instincts, and his constructiveness. The teacher may also appeal to the pupil's desire for approbation, for success, for skill, for co-operation, for the joy of discovery and the satisfaction of ambition. Finally, the teacher may hope to appeal with success to the highest motives and ideals that influence human action, such as positive pleasure in work, joy in mastering difficulties, love of knowledge, hope of success in life, satisfaction of doing right, the ambition to be useful, the sense of duty, the feeling of moral obligation, the joy of unselfish service, and the consciousness of growth toward an ideal.

Positive incentives should be used by the teacher rather than negative ones, and a safe rule to follow is, "Of two equally effective incentives, always use the higher." Appeals to the child's lower nature, his vanity, selfishness, passions, and malevolent feelings are universally condemned as school incentives. We have spoken of positive incentives as rewards, for it is the purpose of positive incentives to establish a stable association between good

conduct and pleasure by the use of incentives in an ascending scale of moral value. This implies that incentives must be suited to the particular school and the individual pupil, and in either case it is little short of a crime to use low incentives where the higher ones could be used. Pupils are like other folks; they must have incentives to effort, motives for conduct, but the higher these incentives are the greater will be the sense of freedom, the higher the plane of conduct, and the nobler the trend of character. With small children commands are necessary; rules, implied or expressed, are indispensable. But commands and rules should be used less and less as the pupil advances in knowledge, and at all times they should be few, well-considered, given once for all, clearly stated, positive in character, and, above all, should be enforced impartially, consistently, and vigorously. Only as a last resort or as a temporary resource in order to prepare pupils for "higher things" should the teacher resort to the use of negative incentives.

(*b*) Negative incentives. Such incentives have the element of coercion. They imply opposition or open rebellion. They are repressive. They involve the withholding of some pleasure or the infliction of some pain. David Page said: "Punishment is pain inflicted upon the mind or body of an individual by the authority to which he is subject, with a view either to reform him, or to deter others from the commission of offences, or both." Thus the purpose of punishment is to establish such an association between bad conduct and pain as to enable the pupil to repress undesirable instincts, inhibit w- -ng impulses, and to render obedience to the customs and rules of the school as the result of freely and habitually choosing higher incentives to conduct.

Here we come to the famous theory advanced first by Rousseau and elaborated by Herbert Spencer—the theory of "natural consequences," or the doctrine that punishments should be the natural result of offences. Spencer maintains that Nature inflicts a full and sufficient penalty for every violation of her laws, and that these penalties are beneficial checks to injurious actions, always follow the actions as results follow causes, are proportional to the offence, are consistent, just, enforce themselves, and hold throughout life. If a child runs a pin into its finger, pain follows. If it puts its hand on the stove, it gets burnt. If it carelessly handles a sharp instrument, it will be cut. And it will be punished in the same way for every repetition of the offence. Children should be treated in like manner in the home and in the school. If a child loses his toy, let him get along without it; if he breaks his knife, do not buy him another; if a little girl is not ready for her walk at the exact minute appointed, let her stay in; if she leaves her toys for her mother to pick up and put away, do not let her have them to play with.

There is very much of value in Spencer's suggestions, and every teacher should read his chapter on moral education. There are many opportunities to apply his theory of natural punishment to school offences. But to attempt to apply his suggestions verbatim would be not only foolish but criminal, for the child is ignorant of the dangers of fire and edged tools; nor are Nature's penalties always inflicted at once and in direct connection with the offence; nor are they always proportional to the wrong act or confined to the perpetrator of the act.

This conception of Nature, so popular with followers of Rousseau and Spencer, as a benign, motherly personality whose business it is to educate the individual child is

worthy only of the spring poet. Nature, to use their familiar figure of personification, has her sweet and tender moods, her fragrance of the rose, her songs of birds, her arching skies; but she has her dark and terrible moods as well. She has her tempests, her earthquakes, her serpents that hiss and sting, her monsters that devour. She does not discriminate between the guilty and the innocent, the just and the unjust as individuals. She knows no pity, feels no remorse. She beats down the defenceless. She burns all the deeper the baby's tender flesh because he is a baby. Yet the teacher is asked to stand in the place of Nature to the child, and imitate a mere blind, impersonal, unfeeling force personified in order to carry out a biological theory of education. Tennyson knew better, for he wrote of Nature:

> "So careful of the type she seems,
> So careless of the single life."

Pestalozzi knew better, for he said: "Nature is devoted to the race as a whole, but she is careless of the individual. On the side of the individual she is blind, and, being blind, she cannot come into harmony with the seeing, spiritual, moral nature of man. Therefore the education and training of the child must be taken out of the hands of blind, sensuous Nature with her darkness and death, and put into the hands of our moral and spiritual being, and its divine, eternal inner light and truth," that is, into the hands of a discerning, personal, moral, sympathetic teacher.

Admitting, then, that negative incentives have a proper and necessary function in the government of the school, the teacher should realize that great care and wisdom are necessary in their use. Negative incentives are as varied

in kind and degree as are positive ones. In fact, almost every positive incentive has its negative side. The pupil's fear of the loss of favor and his dread of failure may be as strong as his desire for praise and his hope of success. This fact indicates the most important consideration in regard to the use of negative incentives; to be effective, they must be used very sparingly and only to supplement positive incentives or to meet some sudden emergency, or crisis, in government. Children soon lose their fear of penalties daily inflicted. They soon grow callous to fault-finding, scolding, and threats. They care nothing for the censure of one whom they have ceased to respect. They even become indifferent to brutality, sarcasm, ridicule, and personal indignities where these things are daily occurrences in the school-room. Teachers would never permit themselves to depend upon negative incentives as a system if they understood these things better. Retribution has no place in punishment and only hardens the offender. No teacher should treat the offences of pupils as a personal matter, but should treat every offence as one committed against the school. What is very plain is this: (1) All negative incentives are bad if used all the time, or used in the wrong spirit; (2) some negative incentives are always bad.

Among negative incentives that are always bad are personal indignities such as pulling the hair, boxing the ears, blows on the head, washing out the mouth with soap and water, binding a cloth over the mouth to prevent whispering. Other punishments, such as ridicule, sarcasm, calling pupils idiots and dunces and stupid things, are criminal as well as foolish. No teacher can use such punishments, even occasionally, and retain the respect of his pupils.

Among the negative incentives that may be used, most

authorities name: (1) Reproof, public and private; (2) loss of privileges; (3) restitution, as in the case of injury to property; (4) detention to perform a neglected task; (5) suspension; and (6) in extreme cases expulsion or corporal punishment. It would seem as a general rule that corporal punishment is out of place in the high school, and expulsion is equally out of place below the high school. A lot of sentimental foolishness has been written on the subject of corporal punishment. Instead of forbidding corporal punishment, school boards would show greater wisdom to employ as teachers only such persons as are wise enough to decide when its use is necessary and discreet enough to use it judiciously.

Some rules that apply to all punishments are: (1) They should be used only as temporary expedients to supplement positive incentives; (2) wherever possible and effective, they should be the natural outcome of the pupil's misconduct; (3) they should be just, that is, proportional to the offence, and the offence is to be measured by inner motive rather than by outer act; (4) they should be educative, and reformatory in nature; (5) they should be economical, making as little draft as possible on the nervous and emotional energy of the offender as well as on the time and the feelings of the teacher and the school.

The Teacher at Work.—As a final word on school government, it should never be forgotten that the teacher's chief work is not to punish, but to train; not to govern, but to teach. The true teacher at work is a liberator. In his preface to the "Toilers of the Sea," Victor Hugo says: "Religion, Society, and Nature—these are the three struggles of man! They constitute at the same time his three needs. Man has need of a faith; hence the temple. He must create; hence the city. He must live; hence the

plough and ship. But these three solutions comprise three perpetual conflicts. Man struggles with obstacles under the form of superstition, under the form of prejudice, and under the form of the elements."

The child, like the primitive man, is the slave of ignorance, of fear, and of nature. It is the purpose of teaching to set him free, to give each child possession of the priceless heritage of the race, to free him from the bondage of ignorance and superstition, to give him power over brute matter and blind force, to deliver him from selfishness and wilfulness and evil thoughts, and to bring him into such sympathy and union with his race that his soul shall reflect the divine purpose and duty and conscience and service shall become the guiding principles of his life.

The teacher at work is a creator. He creates interest and motive and purpose. He recreates his own mental states and his own moral image in the mind and heart of the child. The "communication of knowledge," the "forming of character" can have no other meaning than this. The teacher at work arouses and uses the pupil's mind to form in it a concept, a truth, or an ideal which is in the mind of the teacher.

It was one of the world's greatest teachers who in his seventy-seventh year wrote: "I thank God that I have all my life been a man of aspirations; for the heart's longing after good is always a rill from the fountain of all good—from God."

In a teacher's note-book I once read these words:

"May every soul that touches mine—
Be it the slightest contact, get therefrom some good.
Some little grace, one kindly thought,
One aspiration yet unfelt, one bit of courage
For the darkening sky, one gleam of faith

To brave the thickening ills of life,
One glimpse of brighter skies beyond the gathering mist,
To make this life worth while,
And Heaven a surer heritage."

If this shall be the result of our work as teachers, we are teachers indeed, and our labor is not in vain.

SUGGESTED READINGS

White, "School Management," pp. 129–216; Hughes, "How to Keep Order"; Baldwin, "School Management," part III; Compayré, "Lectures on Pedagogy," pp. 463–476; Sabin, "Common Sense Didactics," chap. IX; Raymont, "The Principles of Education," chaps. XVII, XVIII, XIX; Bagley, "Classroom Management," chaps. V, VII, VIII; Page, "The Theory and Practice of Teaching," chap. X; Tompkins, "School Management," pp. 157–183; Dutton, "School Management," chaps. VII, VIII; Perry, "The Management of a City School," chap. IX; James, "Talks to Teachers," chaps. VIII, XV; Parker, "Talks on Teaching," chaps. XXIV, XXV; Hughes, "Tom Brown at Rugby"; W. H. Smith, "The Evolution of Dodd"; Stephens, "Phelps and His Teachers"; Seeley, "A New School Management," chaps. VII, VIII, "History of Education," pp. 96–100; and "The Foundations of Education," chaps. VIII, IX, XXIV; Kellogg, "School Management," chaps. VII, VIII; O'Shea, "Dynamic Factors in Education," chap. I; Taylor, "Class Management and Discipline," chap. V; Keith, "Elementary Education," pp. 119–133; Huntington, "Unconscious Tuition"; Quick, "Educational Reformers," pp. 318–333.

INDEX

ABILITY—CONFIDENCE IN, 76.
Initiative and executive, 65–66.
Success due to, 8.
Abstraction—Process of, 231–232.
Adolescence—Importance of, 51.
Agassiz, Louis—Epitaph, 23.
Aids to method—Teaching devices, 343–344.
Visiting other schools, 31.
Aim of education—What it is, 38, 112, 252.
Aims—Law of, 246–248.
Lesson, 322–324.
Must be clear, 311–312.
Of course of study, 120–121.
Of different branches, 129–134.
Of intellectual education, 107.
Of moral education, 112.
Of new lesson, 285–286.
Of physical education, 105.
Of the recitation, 259–261.
Of the school, 102, 105.
Of the study lesson, 293–298.
Relation to course of study, 115.
Value of, 40, 286.
American schools—Conditions of, 16.
Vs. German schools, 39–40.
Apparatus—For the school, 201.
Apperception—Law of, 242–245, 332.
Steps included in, 299–300.
Application—Fifth formal step, 336–339.
Importance of in recitation 342–343.
Aptitude for teaching—Analysis of, 21, 39.
Aristotle—Idea of education, 15.
Arithmetic—Value of, 131.
Arnold, Dr.—On daily preparation of teachers, 263.
Art—Value of, 132–133.
Art of teaching—How acquired, 20.
In college curricula, 27.
Assignment of lessons—How daily study aids, 269–271.
Importance and value of, 279.
Meaning of, 275.
Principles governing, 279–284.
Proper, 341.
Steps in, 284–289.
Test of teacher's ability, 277.
Things assumed in, 275–277.
Assimilation—Factors in, 300–301.
Association of ideas—Laws of, 333.
Attention—Children's, 315.
Factors of, 236.
Importance of, in class, 10, 315.
Law of, 250–252.
Makes motives, 362–363.
Authority—Necessity of, 379.

BAGLEY—ON ASSIGNING A LESSON, 279.
On formal steps, 337.
On seat work, 291–292.

Bagley—On teacher's preparation of lessons, 273.
Bain—On observation, 229.
Baldwin—On school organization, 70.
Qualifications necessary to secure order, 380.
Batavia system of gradation, 167–168.
Bell—On importance of first day, 130.
On motor activities, 133.
Bender, W. H.—On daily routine, 71–72.
Blunders—Neglect of children, 35.
Teacher's, 9.
Books—Mastery of, 295–296.
Means of growth, 30.
Boys—Why they leave school, 8.
Browning, Robert—Description of children, 53.

CAMBRIDGE PLAN OF GRADATION, 168–169, 170–171.
Care of the school-room, 199.
Carter—On stupidity, 212.
Certificate—No magic in, 3.
Lowest grade, 8.
Channing—On teachers, 207.
Character—Children's, shaping of, 42.
Forming, 361.
Habits as related to, 367–369.
Modified by teacher, 207.
Supreme aim of education, 112.
Children—Abuse of, 35.
Examination of, 49.
Results of neglecting, 36.
Child's capital—Concepts, 227–233.
Feeling and will, 233–236.
Images of imagination, 226–227.
Memory images, 225–226.
Nervous energy, 220–223.
Percepts, 224–225.
Sensations, 223–224.
Child study—Abuse of children by society, 35–36.
Advantages of, 39–45.
Methods of, 45.
Results of, 47–52.
Teachers must know, 34, 39.
Teaching without knowledge of, 46–47.
Transforms spirit of teacher, 51–52.
Cicero—On training teachers, 15.
Classification—Basis of, 156–157.
In rural schools, 157.
Suggestions for, 159–160.
Comenius—On learning, 214.
On the senses, 223.
On universal education, 15.
Orbis Pictus, 239.
Committee of Fifteen—On art of reading, 295.
On teaching without training, 14.
On value of different studies, 126.
On works of literary art, 204.
Committee of Ten—Selection of studies by, 125.
Common schools—A unique institution, 80.
Archbishop Ireland on, 82.
Factors in, 81–92.
Faith in, 83.
Nature of, 93–101.
Relation to democracy, 78.
Common sense—In organization, 73–74.
In teaching, 64–65.
Needs training, 64–65.
Will not invite failure, 6.

Community—Ideals of, 382–383.
Relation of course of study to, 121.
School system made by, 84–85.
Comparison—Chief work of recitation, 342–343.
Importance of, 301.
One of the formal steps, 332–333.
Second step in forming concepts, 230–231.
Compayré—On general principles of instruction, 339.
On rules, 377.
Compulsory-attendance laws, 88.
Concentration—Definition of, 138–139.
Concepts—Meaning of, 227–229, 300.
Steps in thinking, 229–233.
Confidence—Gained by knowledge, 9.
Lack of, 10.
Consciousness—Stream of, 344–345.
Contagious diseases, 199.
Contents of child's mind, 222–236.
Contracts—Signing and keeping, 146.
Co-operation—Between pupils and teacher, 9.
Law of, 91, 100.
Life of the school, 93–94.
Co-ordination—Meaning of, 139.
Corporal punishment—Frequent, 373–374.
Montaigne on, 37.
When justifiable, 379, 390.
Why discarded, 375.
Correlation—Meaning of, 139–140.
Of studies, 138.
Cortex—Impressions on, 220–222.
Course of study—Aims of, 120.
Correlation of subjects in, 138–140.
For rural schools, 157–158.
Groups of studies in, 128–134.
How to use, 118–120, 140.
Importance of, 115.
Nature of, 122–124.
Problems in making, 124.
Proposed by Comenius, 347.
Relation to aims, 115.
Relation to community, 121.
Selection of material, 124–125.
Sequence of studies in, 134–138.
Teacher and, 116, 276.
Culture epochs—Theory of, 137–138.

Decoration of the schoolroom, 202–203.
Deduction—Fifth formal step, 336–339.
Law of, 249–250.
Meaning of, 229.
DeGarmo—On formal discipline, 125.
On inferences, 229.
Deliberation—Process of, 363–364.
Democracy and common school, 78.
Vs. monarchy in school organization, 85–86.
Development—Implies training, 349–350.
Lesson, 325–343.
Order of, 136.
Stages of, 50.
Devices—Aids to method, 343–344.
Of gradation, 169.
Dewey, Dr.—On education, 250.
On what a child gets out of the lesson, 219.

Dickens, Charles—On abuse of children, 36.
Difficulties in study, 302–306.
Dinsmore—On objects of the recitation, 260.
Discipline—Fallacy of old view of formal, 350.
Montaigne on brutal, 37.
Old view of, 373–374.
Order precedes, 376–378.
School government as related to, 374–375.
Theory of formal, 125.
Discipline studies vs. knowledge studies, 107.
Disorder—How teachers may cause, 382.
Prevented by child study, 40–41.
Sources of, 9.
Draper, Andrew—On schools, 305.
Dutton—On objects of the recitation, 261.
On study, 291.
Dutton and Snedden—On classification, 173–174.
On supervision of study, 310–311.

EDUCATION—AIM OF, 38, 112.
As a preparation for living, 104–105.
Based on laws of mental development, 49–50.
Cardinal principles of new, 39.
Defects of old, 37.
Definitions of, 102–103.
Kinds of, 105.
New, based on child study, 37–38.
Results of, 110–111.
Three H's in, 113.
Educational waste—Aimless teaching, 40.
Defective organization results in, 70.
Hinsdale on, 291–292.
No professional training, 16.
Educational papers—Means of growth, 31.
Effects of child study, 47–52.
Elementary schools—Course of study in, 115.
Importance of, 116.
Reforms needed in, 140–141.
Up-to-date, some things taught in, 48.
Eliot, Pres.—On failure of popular education, 17.
Elizabeth plan of gradation, 167.
Ely, Prof.—On relation of education to production of wealth, 87.
Emotions—Appealing to child's, 279, 280, 385.
Expression of, 240–241.
Environment and heredity, 43–44.
Equipment — Compared with teacher, 32.
Evans, L. B.—On decoration, 203.
Everett, E.—On schools, 23.
Examinations—Required by State, 6.
Experience—Without training, not sufficient, 26.
Expression—By music, drawing, etc., 48.
Eyes—Care of, 193–195.

FACULTY PSYCHOLOGY—MAY BE OF NO VALUE, 49–50.
Failure—Effects of, 369–370.
Excuses for, 66.
Lack of scholarship, 8.
Professional training prevents, 24.

Faith in the public schools, 83–84.
Fatigue—Habits lessen, 354.
Must be avoided, 192–193.
Relation to programme, 179–181.
Feeling—Factors of, 233–236.
Fénelon—On schools of his time, 37.
First day of school—Importance of, 150.
"Jean Mitchell's," 153–154.
Mistakes of, 150–152.
Suggestions for teacher's plan, 153.
Five formal steps—Application of, 339–344.
As applied to development lesson, 325–343.
Names of, 324–325.
Formal discipline—Theory of, 125.
Free schools—Necessity of, 78–80.
Froebel—Idea of play instinct, 215.
On object of education, 112.
Functions of the modern school, 19, 22.
Furniture—Necessary pieces, 200–201.

GENERALIZATION—MEANING OF, 232–233, 334–336.
Work of the recitation, 342–343.
German schools—Mann's impressions of, 56–57.
Vs. American schools, 339–340.
Gilbert—On course of study, 115.
Gordy, Dr.—On co-ordination, 139.
Gradation—Advantages of, 161–162.
Batavia system, 167–168.
Dangers of, 162–165.
Elizabeth plan, 167.
Meaning of, 155–156.
Modified Cambridge plan, 168–169.
Of city schools, 160–161.
Of rural schools, 157–158.
Other devices of, 169.
Term or semester plan, 166.
Wiser course of, 173–175.
Graded schools—Problems of, 61–62.
Gregory, Pres.—On preparation of lesson, 268.

HABITS—ADVANTAGES OF, 354–357.
As related to character, 367–369.
Conserve knowledge, 356–357.
Dangers of, 357–360.
Formation of, 73, 252–253, 346, 350–353, 360–367.
Of self-controlled work, 297–298.
Rules for forming and breaking, 369–371.
Strengthen power, 355.
Hall, Dr.—On health, 193.
On learning a lesson, 255.
On waste of time, 291.
Hamilton, Dr.—On study, 293.
On the recitation, 254–255.
Hamilton, Sir William—On common sense, 64.
On highest function of the mind, 301.
On method, 319.
On teaching, 264.
Happiness—Elements of, 105, 106.
Harper, Pres.—On the recitation, 256.
Harris, W. T.—Definition of education, 103.
On aims of the recitation, 261.
On arithmetic, 131.
On basis of philosophy of education, 126.
On professionally trained teachers, 32.
On teacher's commands, 378.

Harris, W. T.—On ungraded schools, 157.
On vagabondage, 36.
Health—Question of, 192–200.
Search on, 106.
Hearing recitations, 206, 255.
Hegel—On beauty, 202.
Herbart—Formal steps, 282, 324.
On dejection, 361.
On work of education, 112.
Heredity—Discussion of, 43–44.
High schools—Professional course in, 28.
Hill—Definition of education, 103.
Hinsdale—On objects of the recitation, 259.
On the recitation, 255.
On wasted time, 291–292.
Term for recitation, 275.
Hirsch—Why boys leave school, 8.
History—Value of, 131–132.
Hughes—On disorder, 382.
Hugo, Victor—On the three struggles of man, 390–391.
Human nature—Understanding of, 74–75.
Hutton—Two course system, 168–169, 170–171.
Hygiene—Relation of, to good order, 192.

IGNORANCE—BAD HABITS FORMED THROUGH, 357–358.
Images—Of imagination, 226–227.
Memory, 225–226, 356.
Imagination—Constructive, 75.
Images of, 226–227.
Imitation—In teachers, 59.
Persistent, 366–367.
Value of, 47–48.
In loco parentis, 22, 34–35.
Incentives—As a means of securing order, 384–390.
Individual—Socializing the, 126.
Individual instruction, 72, 166–167.
Induction—Child's first mode of learning, 302–303.
Law of, 248–249.
Meaning of, 228–229.
Relation to steps in instruction, 336.
Inquiring stage—In teachers, 59.
Instincts—Appealing to child's, 279, 280.
Meaning of, 361–362.
Training of, 367–368.
Institutions—Common schools, 80, 99.
Instruction—Formal steps in, 324–325.
Forming habits must accompany, 350–353.
Interest—A form of feeling, 234.
As a source of order, 380–382.
Doctrine of, 210–212.
Kinds of, 235.
Lack of, 8.
Law of, 250–252.
Nature of, 307.
Sources of, 234.
Theory of, 126–127.
Ireland, Archbishop—On free schools, 82.

JACOTOT—ON TEACHING, 217.
Rules for learning, 308–309.
James, Prof.—On consciousness, 344.
On the great thing in education, 351.
On habit, 364.
On habits of regularity, 177.
On instincts, 369.
On motor-activity, 133–134.
On nervous system, 253.
On study with pupils, 313.

Jefferson, Thomas—On public schools, 79.
Judgment—Comparison necessary in, 334.
Effect of habit on, 358–360.

KEEPING ORDER, 206–207.
Keeping school, 10.
Kilpatrick, V. E.—On advantages of departmental teaching, 172–173.
Kingsley, Charles—On learning lessons, 329.
Knowledge—Acquiring, 325.
As power, 109.
Habits conserve, 356–357.
Road to, 9.
Skill in applying, 111.
Tests of, 348.
Utility of, 125–126.
Washington on, 79.
Knowledge studies—Vs. discipline studies, 107.

LANDON—ON CARE OF SCHOOL-ROOM, 198–199.
On school organization, 156.
Language and literature—Value of, 129–130.
Laws of teaching, 239–253.
Learning—Child's previous mode of, 303–304.
Four rules for, 308–309.
Lessing—On truth, 299.
Lessons—Aim of, 322–324.
Assignment of, 269–271.
How study aids teaching of, 271–274.
How to study, 265–268.
Proper assignment of, 275–289.
Pupil's study of, 290–317.
Teacher's preparation of, 263–274.
Lesson-units, 276, 277.
Library—School, 203–205.
Life—Struggle of, 63.
Lighting of the school-room, 194.
Locke, John—Definition of happiness, 105.
On aims of education, 112.
On memory images, 225.
On sauntering, 210.
Love—Of parents, 34.
Of teachers for pupils, 34, 52–56.

MACAULAY, LORD—ON EDUCATION IN SCOTLAND, 83.
On rights of the State to educate, 82.
McDonald, George—On love of women for children, 34.
McMurry, Charles—On course of study, 123.
On methods, 321.
Madison, James—On popular education, 79.
Magee—On plan-books, 119.
Making of a teacher—Essentials in, 56.
Personality in, 64.
Qualifications, 60.
Mann, Horace—Impression of German schools, 56.
On education, 347.
On old-time school-house, 189.
Marble, A. P.—On unsanitary school-houses, 189–190.
Mason, Charlotte—On value of school work for girls, 97.
Mathematics—Value of, 131.
Memory images—Defined and discussed, 225–226.
How related, 356.
Mental development—Education based on laws of, 49–50.

Mental discipline—Theory of, 125.
Mental power—Result of education, 110–111.
Method of teaching—Aids to, 46, 343–344.
Basis of, 42.
Conforms to child's growth, 49.
Inflicted on children, 59.
Is there a typical, 318–319.
Meaning of, 319–322.
Method-units, 276, 323.
Milton, John—Definition of education, 102.
Mind—Contents of child's, 222–223.
Old view of child's, 49–50.
Mistakes—Child study, 40.
Of first day of school, 150–152.
Montaigne—On brutal discipline, 37.
Moral instruction—Place of, 50–52.
Morals—School-room as teacher of, 191.
Morgan—On children's reading, 204–205.
Morrison, Gilbert—On impure air, 192.
Motives—How attention makes, 362–363.
Motor-activity—Law of, 240–242.
Provision for, 384.
Value of, 47–48, 133–134.
Mulcaster, R.—On training teachers, 15, 27.

N. E. A.—On school children, 349.
Natural consequences—Theory of, 387.
Nature—Inflicts penalty, 387–388.
Nature of the school—An organism, 93.
An institution, 99.
An industrial organization, 93.
As a social community, 99.
Nervous system—As related to teaching, 220–222.
Teacher's knowledge of, 40.
Use of, in expression, 240–242.
Cardinal principles of, 39.
Normal school—First in U. S. and its objects, 28.
Harris on normal-school graduates, 32.

Observation—First step in forming a concept, 229–230.
Opinion—Phases of, 58.
Opportunity—Act on, 370.
Teacher's, 54.
Oral lessons—In lower grades, 325.
Should be inductive, 326.
To text-book lessons, 304–305.
Order—Means of securing 383–390.
Precedes discipline, 376–377.
Sources of, 378–383.
Organizing the school—Comes first, 68–69.
Factors in, 73–74.
Implies mechanism, 72.
Importance of, 70–71, 100.
Meaning and objects of, 69.
Qualifications required for, 74–77.
Systems of, 156.
Teacher's share in, 69–70, 95.
Value of, 71–72.

Page, David—On learning a lesson, 277.
On punishment, 386.
On responsibility of teachers, 4.
On text-books, 264.

Parents—Compared with teachers, 23.
How they help or hinder, 89–90.
Interest in the schools, 88.
Training children, 34, 379–380.
Visiting schools, 89.
Parker, Francis—Experiment at Quincy, 115.
On cause of dullards, 308.
On the child, 55.
Patriotism—Common schools, nurseries of, 80.
Payne, Joseph—On professional training, 21.
Rules for learning, 308–309.
What the teacher cannot do, 218.
Percepts—How acquired, 303.
Nature of, 224–225.
Personality—Definition of, 20,
Growth of, 62–64.
Meaning of, 62.
Pestalozzi—"Father of the public school," 15.
Epitaph, 372.
Miracle at Stanz, 55.
On children's learning, 112.
On clear ideas, 228, 233.
On education, 102.
On nature, 388.
On pupils at Stanz, 208.
Phases of teacher's work, 68.
Philosophic stage—In teachers, 59.
Physical education—Aims of, 105.
Physical powers—Mental action depends on, 48–49, 305–306.
Plan books—Value of, 119.
Planning work—Confidence in ability for, 76.
On opening day, 149–150.
Plato—Definition of education, 102.
Popular education—Eliot, on failure of, 17.
Madison on, 79.
New problem, 15.
Preparation—Of pupil's mind, 326–328.
Proper assignment of lessons, 341.
Presentation—Meaning of, 328–329.
Study of lesson, 341–342.
Professional growth—Means of, 30.
While teaching, 29.
Professional training—Demanded, 18.
Forms standards, 25.
Foundation of, 6.
Harris on, 32.
Health saved by, 25.
Is essential, 19.
Meaning of, 20.
Means of securing, 28.
Neglected, 14, 15.
Prevents experimenting, 26.
Prevents failure, 24.
Programme—Factors in, 177–182.
For rural school, 182–188.
Importance and objects of, 174–175.
Keeping to, 183.
Principles governing, 181–182.
Promotion, 159, 164, 166.
Psychology—Faculty, 49, 60.
Of teaching, 218–219.
Study of, first hand, 42.
Public sentiment, 147.
Pueblo plan, 165, 166.
Punishments—Rules that apply to, 390.
Which are out of place, 389.
Pupils—Helping to study, 310–317.
Ideals of, 12, 51.
Powers appealed to, 329–336.
Response of, 328.

Schools exist for, 90.
Teacher's love for, 52–56.
Pupils—Value of organization to, 71.
Work dovetailing with that of teachers, 330–332.

QUALITIES THAT WIN SUCCESS, 5.
Questioning—Step in lesson assignment, 284–285.
Quick—On child study, 39.
On inattentive children, 235.

RADESTOCK—ON HABIT, 351.
Raymont—On acquisition of knowledge, 343.
On character forming, 361.
On correlation, 138.
On curriculum, 122.
On organization, 69.
Reading—Art of, 295–296.
Recitation—Criticisms of, 255–257.
How attention is secured in, 10, 11–12.
Objects of, 259–261.
Place of, 254–255.
Prerequisites of, 262.
Shall it be abolished, 257–258.
Reforms in schools, 140–141.
Rein, Dr.—On aim of new lesson, 285, 327.
On interest, 126–127.
On method, 344.
Repetition—Persistent imitation, 366–367.
Tendency to, 365–366.
Requirements of teacher—First, 53.
Respect—Gained by knowledge, 9.
Responsibility—Assumed voluntarily, 4.
Cannot be ignored, 4.
Created by child study, 52.
How met, 5.
Personal, 298.
Preparation for, 61–62.
Pupils, for work assigned, 277, 287.
"Revival of Learning"—Views from, 108.
Roark—On assignment of lessons, 275.
On duty of the teacher, 314.
On objects of the recitation, 259.
On the recitation, 255.
Rollin—On study, 307.
Rooper, T. C.—On attention, 252, 315.
"Pot of Green Feathers," 300.
Rousseau—Conception of nature, 387.
On child's first teachers, 347.
On habit, 359.
On nature of child, 37.
Rural schools—Classification in, 157, 159–160.
Course of study for, 157–158.
Programme for, 182–188.

SABIN, H.—ON NATURE OF THE CHILD, 41.
On study, 293.
On the recitation, 255.
On unsanitary school-houses, 190.
Salary—Of women teachers, 14.
Salisbury—On assigning a lesson, 278.
Schaeffer, Dr.—On aim of teacher, 311.
Scholarship—Commands respect and confidence, 9.
Creates interest in school work, 8.
Definition of, 7.
Foundation of professional training, 6.

Scholarship—Importance of, 6.
Inspires study, 11.
Meaning, 7.
Prevents disorder, 9.
Sets up ideals, 12.
School boards—Powers of, 85.
School funds—Permanent, 79.
School government—A relative term, 377–378.
As related to discipline, 375–376.
Has become humane, 374–375.
School-house — As teacher of morals, 191.
Care of, 199–200.
Condition of, 148.
Decoration of, 202–203.
Improvement of, 48.
Old-time, 189–190.
Should interest community, 190–191.
Unsanitary, 189–190.
School laws—What they provide for, 81–82.
School management—Meaning of, 155–156.
Systems of, 156–157.
School officers—Duties of, 144.
Relation to the State, 84.
School records—In country schools, 160.
On keeping, 148–149.
School system—Made by each community, 84–85.
School work—Creative self-activity, 214–215.
Defined, 209.
More than play, 210–211.
Not drudgery, 212–214.
Not puttering, 210.
Tests of, 215–216.
Schools, Public—A unique institution, 80.
Factors of, 81–92.
Functions of, 19, 22.
Nature of, 93–101.
Visiting, by teachers, 31.
Science—Purpose of, 130–131.
Scotch schools—Macaulay on, 83.
Search, P. W.—On good health 106.
On the child, 137.
On the recitation, 255–256.
Securing a school, 144–146.
Seeley, Levi—Importance of professional training, 14.
Seerley, H. H.—On child study, 52.
Self-activity—Creative, 214–215.
Law of, 245–246.
Self-regulating system—White on, 73.
Sensations—Defined, 223.
Factors in, 223.
Foundation of all knowledge, 239–240.
How combined, 242.
Qualities of, 224.
Sense-perception—Law of, 239–240.
Sequence of studies, 134–138.
Shaw, Dr.—On course of study, 174.
Simon, Jules—Definition of education, 103.
Skill—In applying knowledge, 111.
Smyser, Prof.—On Batavia plan, 168.
Society—Neglect of children, 36.
Specialization—Necessity of, 18.
Spencer, H.—Definition of culture epochs, 137.
Definition of education, 102.
On a test by which to judge culture, 214.
On art of education, 27.
On activities of human life, 104.

Spencer, H.—On forming habits, 351.
On gaining a boy's trust, 384.
On inferences, 281.
On knowledge and discipline studies, 107.
On making collections, 200.
On phases of human opinion, 58.
On teaching without knowledge of children, 46–47.
Plea for study of science, 125–126.
Theory of natural consequences, 387.
Spirit of the teacher—Child study can transform, 51.
Meaning of, 6.
Stages in teacher's evolution, 58–59.
State—As a factor in common schools, 81–83.
Stephens—On county superintendent, 144.
On loveless school, 52–53.
Stream of thought—Dr. James on, 237.
In the recitation, 344–345.
Studies—Groups of, 128–129.
Order of, 134–135.
Succession of, 179–181.
Value of, 128.
Study—Art of, 314–316.
Conditions of, 306–308.
Defined, 127–128, 298–299.
Difficulties in way of, 302–306.
Hindrances to, 306.
How inspired, 11.
How study aids in teaching, 271–274.
How to help pupils to, 313–314.
Importance of learning how to, 292–293.
Importance of daily, 263–264.
Method of, 308–310.
Nature of, 299–302.
Of lessons, 341–342.
Oversight of pupils, 288–289.
Rules for, 308–310.
Waste of time in, 291–292.
When to, 268–269.
With the pupils, 313–314.
Study lesson—Aims of, 293–298.
Importance of, 302.
Meaning of, 257, 258, 275, 290–291.
Steps of, 301.
Success—Qualities that win, 5, 22, 56.
Sully—Definition of education, 103.

TATE—ON APTITUDE FOR TEACHING, 21.
Taxpayers—As a factor in the school, 86–87.
Teachers—Assigning lessons, 277–278.
As trainers, 346–353.
At work, 390–392.
Becoming one, 3.
Child study transforms spirit of, 51–52.
Duty of, 107.
Meeting legal requirements, 143–144.
Necessity of scholarship in, 6–7.
Responsibility of, 91–92, 144.
Not to blame for present conditions, 22.
Opportunity of, 113–114.
Preparation of lesson, 263–274.
Qualities that win success, 5, 22, 56.
Securing a school, 144–146.
Training essential, 19.

Teachers—What people expect of, 66.
What they should be, 38.
Who cease to grow, 263.
Work as organizers, 95.
Teacher's creed, 208.
Teachers' institutes—Means of professional growth, 31.
Teachers' reading circles—As a means of growth, 30.
Teaching—Definitions of, 217–218.
Departmental, 172–173.
Devices used in, 343–344.
Formal steps in, 324.
How daily study aids, 271–274.
Laws of, 239–253, 327–328, 329, 333.
Mode of learning, 264.
Must appeal to the whole child, 220.
Nature of, 217–238.
Not a mechanical process, 219–220.
Preparation for, 34, 58.
Psychology of, 218–219.
Purpose of, 391.
Two-sided process, 218.
Typical method of, 318–319.
Tennyson—On nature, 388.
Text-books—Independent of, 10, 264.
Lessons from, 304–305.
No stimulus to effort, 305.
Study of, 297.
Subject-matter of, 301–302.
Use of, 257, 342.
Thinking—Definition of, 280.
Power of sustained, 296–298.
Thorndike—On habit, 370–371.
On impulses, 358.
Tompkins—On business of teacher, 113–114.
On concentration, 139.
On course of study, 124, 276.
On study period, 292–293, 312.
Training—Development implies, 349–350.
Forms of, 372.
Habits formed through, 346.
Nature of, 347–349.
Neglect of, 346–347.
Spirit and motives of, 371–372.
Trumbull—On teaching, 217.
Truth—Lessing on, 299.
Tuley, Judge—On relation of society to crime, 36.

UNCONSCIOUS PREPARATION FOR TEACHING, 60–61.
Unconscious tuition, 383.
Unity, Law of—In child's development, 50.

VENTILATION—MORRISON ON, 192.
Teacher's knowledge of, 197–199.

WASHINGTON, GEORGE—VIEW OF EDUCATION, 79.
Wayland, Francis—On study of text-books, 297.
Wellington, Duke of—On habit, 346.
White, E. E.—On assigning lessons, 277.
On child's need of mental activity, 290–291.
On end in view in teaching, 295.
On method of learning, 110.
On scholarship, 6.
On self-regulating system, 73.
On study, 292, 299.
On the recitation, 256.
Wickersham—On objects of the recitation, 259.
On study, 293.

Will—Factor in learning, 233–236.
Relation to lesson assignments, 281.
Study depends on, 307–308.
Work of the school—Creative self-activity, 214–215.
Defined, 209.
Helping child, 207.
More than play, 210–212.
Not "hearing recitations," 206.
Not "keeping order," 206–207.
Not mere drudgery, 212–214.
Tests of, 215–216.

ZILLER—ON CULTURE EPOCHS, 137.

LB875 .C6
The teacher and the school,
Gutman Library
3 2044 028 546